IN THIS ISSUE: LEARNING FROM WAR – TWEAKING WEAPONS AND TACTICS IN FOURTH-CENTURY BC GREECE

AW

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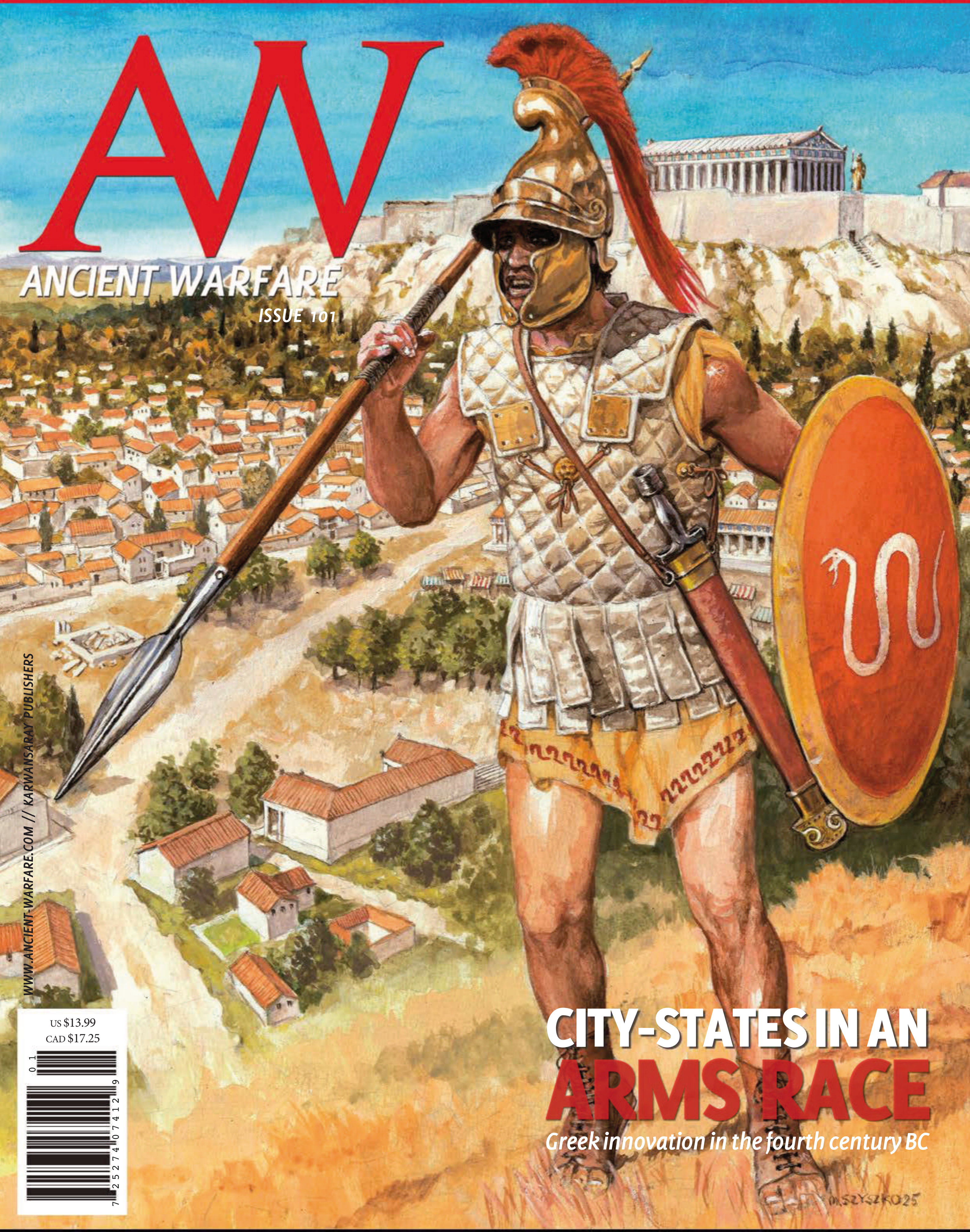
ISSUE 101



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CITY-STATES IN AN ARMS RACE

Greek innovation in the fourth century BC

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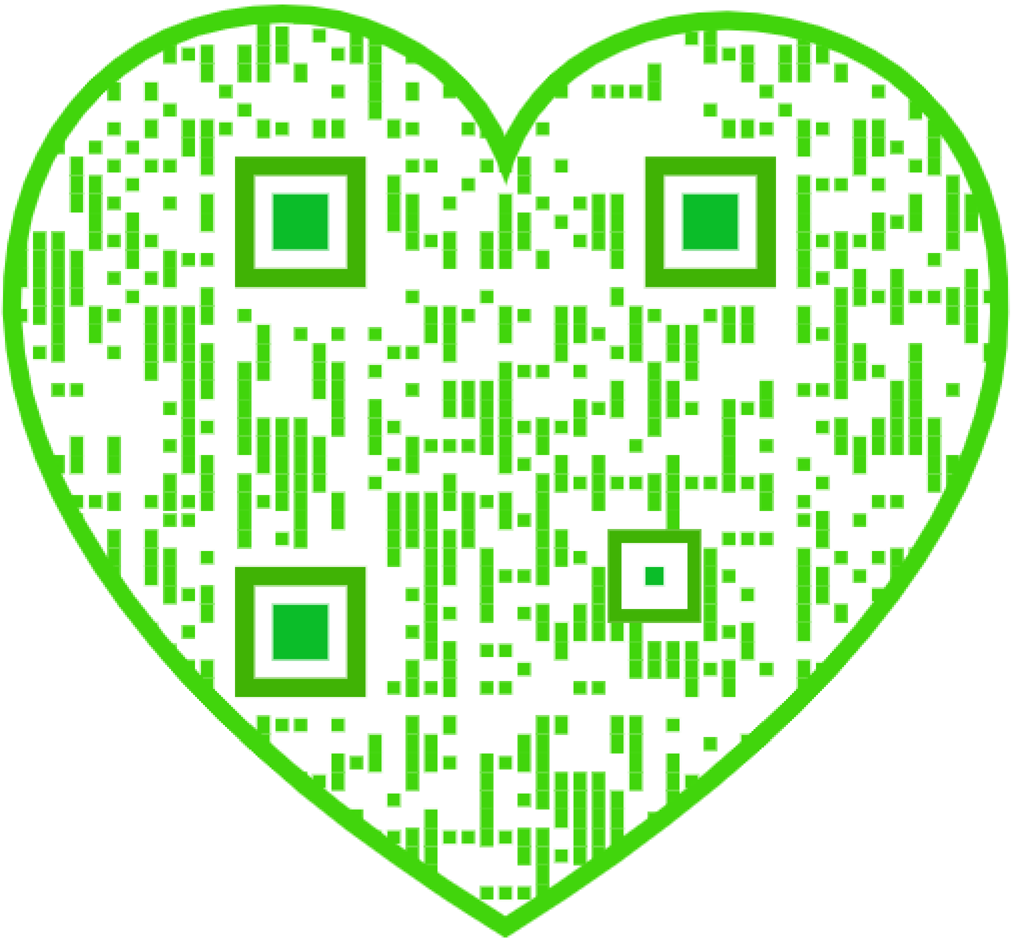
SPECIALS – STORIES ON SHIELD-BANDS // DAUNIAN WARRIORS // THE ROLE OF WEATHER IN WARFARE



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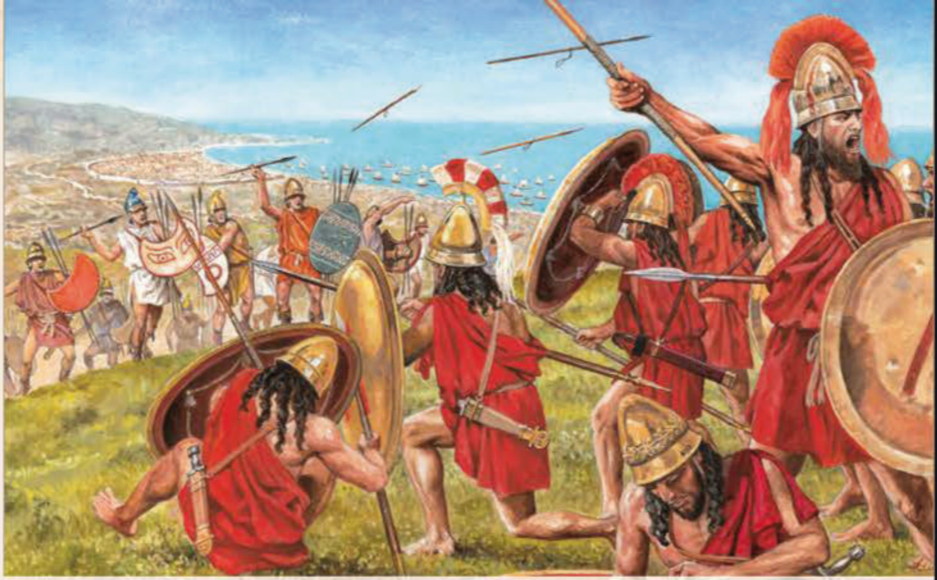

THEME: GREECE IN THE FOURTH CENTURY BC

The Peloponnesian War had ripped up the existing alliances in Greece – over the next decades, the main city-states looked for ways to regain money, power, and win battles.

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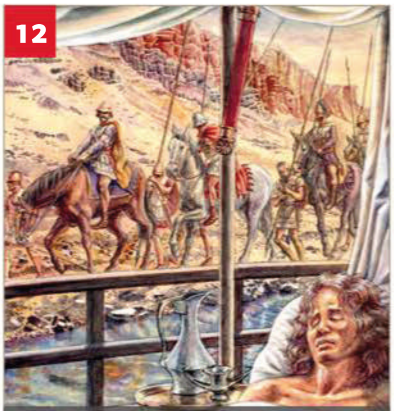

INDIAN ULCER

Alexander the Great's campaign in India quickly devolved into a series of insurrections and internal disputes.

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FLEXIBLE SPARTAN

Spartan society has a reputation for inflexibility and rigid adherence to customs. King Agesilaus II was able to break the mould.

EDITORIAL — *Ancient tech tree*

I'm going to be showing my own age here, but the computer games Civilization 1 and 2 were quite 'present' (read: "when was I supposed to have that paper ready??") when I was in college. If that sounds even remotely familiar, you'll know what I mean by a tech tree. If you don't, picture a family tree where the basic invention is the stem and new technology follows upon each preceding invention.

Even if you've never played such a game, that kind of framework is probably very recognizable, perhaps more in military history than anywhere else. Stone club is made obsolete by copper axe, which is succeeded by the bronze sword, and iron spear. It is so tempting to automatically assume that the next new thing is superior to what went before: chariot beats mule cart and is beaten in turn by 'proper' cavalry, and so on. The 'Marian reform' created a new and improved Roman army. Except, that it probably wasn't any specific reform, but rather a long process of slow change. The real history is usually more complicated...

Sometimes, however, we are able to zoom in on a period in history where suddenly there was all manner of experimentation and invention in a relatively short time. Was there clear progress? Perhaps. But Macedon still won in the end.

Jasper Oorthuys
Editor, *Ancient Warfare*

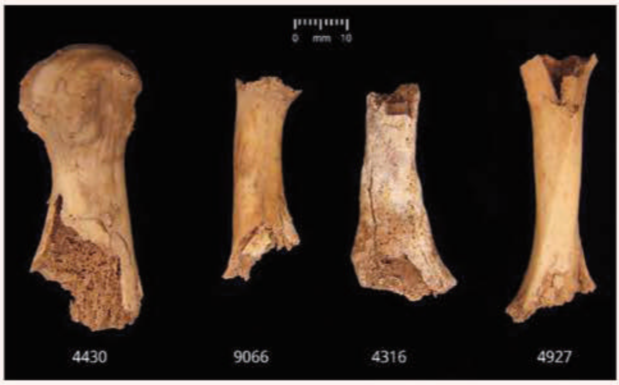
Site of the Battle of the Granicus located — claim

The Battle of the Granicus in May 334 BC was the first major conflict fought between Alexander the Great and the Persian King Darius III. Now a Turkish researcher claims he has located the precise site of the clash.

Professor Reyhan Körpe, Department of History at Canakkale Onsekiz Mart University (COMU) said: "Our research, combined with a careful reading of ancient sources, has led us to pinpoint the exact location of the battle, the villages involved, and its position within the plains."

The river Granikos is nowadays called the Biga River (Biga Çayı). Körpe identified the remains of Hermoton, which Arrian (*Anabasis* 1.12.6) reports was the location of Alexander's last camp before the battle. The researchers undertook geomorphological tests to reconstruct what the nearby landscape looked like at the time. They discovered that

Violent event in Early Bronze Age Britain



Bones showing damage attributed to possible human chewing.

© Schulting RJ, Fernández-Crespo T, Ordoño J, et al./Cambridge University

New evidence of violent conflict presents a darker picture of life in Early Bronze Age Britain than previously imagined. Remains found in a deep shaft reveal that the human victims had been butchered, possibly eaten, dismembered, and then discarded.

A study led by the University of Oxford has uncovered the largest-scale example of interpersonal violence from the site of Charterhouse Warren, Somerset, England. Researchers analyzed over 3000 human bones from a 15-m-deep shaft. The remains of at least 37 individuals – men, women and children – showed clear signs of a violent death, including blunt force trauma, cutmarks, and perimortem fractures, indicating intentional butchery. The scientists note: "This was probably a single event occurring sometime between 2210 and 2010 cal [calibrated, i.e. radiocarbon dated] BC."

Their findings paint a picture of a prehistoric people for whom perceived slights and cycles of revenge could result in fatal actions. The scientists write: "The factors contributing to such violence remain unclear, but the event may have been part of a spiralling cycle of revenge arising from social and political pressures within or between Early Bronze Age communities."

Evidence for infection with bacterium (*Yersinia pestis*) in the teeth of two children indicates disease, which may possibly have also exacerbated tensions.

The study, ''The darker angels of our nature': assemblage of butchered Early Bronze Age human remains from Charterhouse Warren, Somerset, UK', is published in *Antiquity* (2024), accessible online.

Remains of an Early Bronze Age skull from Charterhouse Warren showing cranial trauma.
© Schulting RJ, Fernandez-Crespo T, Ordono J, et al. / Cambridge University

The proposed location for the battlefield where the battle of the River Granicus was fought in May 334 BC.
© LiveScience

Cypriot terracotta statue of a Persian cavalryman from the third century BC. Note the saddlecloth made from a pelt.
© The Metropolitan Museum of Art

the course of the Biga had changed little since 334 BC. Körpe also claims to have identified the exact route taken by Alexander and his 18,100 troops, beginning at Ozbek, then crossing through Umurbey and Lapseki to reach the Granikos.

Sceptics counter that the location has long been known. To add anything more precise to the site would require material evidence of the battle fought 2400 years ago, such as arms, armour, and equipment.

The site will be developed into a tourism attraction as part of the 'Alexander the Great Cultural Route' development project.

Belt fittings suggest drug use by Germanic warriors

A study by Polish scientists proposes that small, spoon-shaped objects often found on the belts of ancient warriors across northern Europe may have been used to dispense stimulants before battle. Germanic warriors may have gone into battle high on narcotics!

The objects, identified and analyzed by researchers from Maria Curie-Sklodowska University, were discovered at 116 archaeological sites in Scandinavia, Germany, and Poland. The spoon-shaped items – typically 40–70 mm long – were attached to warriors' belts. With concave bowls or flat disks measuring 10–20mm, these terminals appear to have played no functional role on the belt.

The study suggests that these objects could have been used to measure and dispense stimulants, likely to reduce stress and fear before battle and to enhance the warriors' stamina. The team speculates that the Germanic peoples of the Roman period had access to a variety of stimulants, including poppy, hops, hemp, henbane, belladonna, and fungi, which could have been consumed as powders or in liquid form, often dissolved in alcohol.

The novel interpretation challenges the common assumption that narcotics were rarely used by peoples living outside the Roman Empire. The researchers propose that the use of such stimulants was not only widespread in war fighting, but also likely used for medicinal or ritual purposes.

'In a narcotic trance, or stimulants in Germanic communities of the Roman period', is published in *Praehistorische Zeitschrift* (2024), and accessible online.

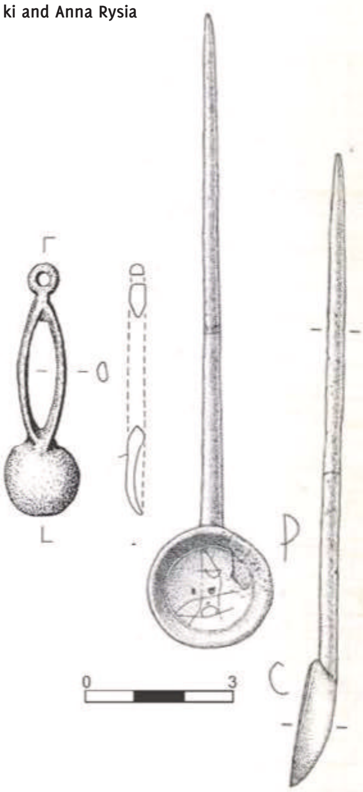


Diagram of one of the researched spoons, this example from Mušov, Czech Republic, close to a Roman military settlement on Burgstall Hill that existed from the second century AD onwards.
© Anna Jarosz-Wilkołazka, Andrzej Kokowski and Anna Rysia

A Germanic chieftain's grave was also excavated near Musov, in which a bronze cauldron decorated with four cast heads with Suebian knots was found.
© Bullenwaechter / Wikimedia Commons

The Hawkedon Helmet, discovered near Hawkedon, Suffolk, England and now in the British Museum, is stamped with a name and the (gladiatorial) maker's mark.
© Claire H / Flickr

Gladiator in Britain wore helmet made in Pompeii

A troop of a gladiators may have been brought to Britain during, or in the years immediately following, the Roman invasion of Britain. This new interpretation may explain why a high-quality Roman gladiator helmet was discovered in a field in England two millennia later.

The helmet was found by a farmer ploughing his land near Hawkedon in Essex in 1965. Though damaged and missing its visor, the bowl was complete and its brow- and neck-guards were still in place. It is the only confirmed piece of gladiatorial armour from Roman Britain.

New metallurgical analysis of the helmet carried out by scientist Dr Peter Bray of the University of Reading reveals it was likely made in Italy in the first century AD. The helmet is made of an unusually high-quality bronze.

The high status of the gladiator is supported by markings stamped on the helmet. The letters (an initial and the beginning of his *cognomen*) suggest that his *praenomen* was very likely Publius, and that his *cognomen* was probably either Carus (meaning 'dear') or Carminius (perhaps meaning 'red' or 'scarlet').

The maker's inscription, which matches one found on a helmet discovered in the gladiator barracks at Pompeii, suggests the helmets were crafted by the same master craftsman.

Dr Bray speculates that the helmet's owner may have been part of a troop of gladiators brought to Britain for the victory celebrations held in Colchester in AD 43.

The helmet will be showcased in the special exhibition 'Gladiators in Britain' touring the UK from 25 January 2025 to 19 April 2026.

'Terracotta Army commander' restored

Archaeologists working at the mausoleum of China's first emperor have uncovered a terracotta warrior believed to represent a senior military commander. It marks the first of its kind since excavations began in 1994.

The figure was found broken into fragments and has been carefully conserved and reassembled. Zhu Sihong, head of the excavation, has suggested the figure was likely the highest-ranking officer in the unit. The statue is distinguished by an ornate headdress and a cuirass partly of lamellar armor. It was found with traces of its original painted colours.

Alongside the commander, the figures of two high-ranking officers and five regular soldiers were found. Only ten senior officer figures have been unearthed from the warriors discovered to date. Since formal excavations

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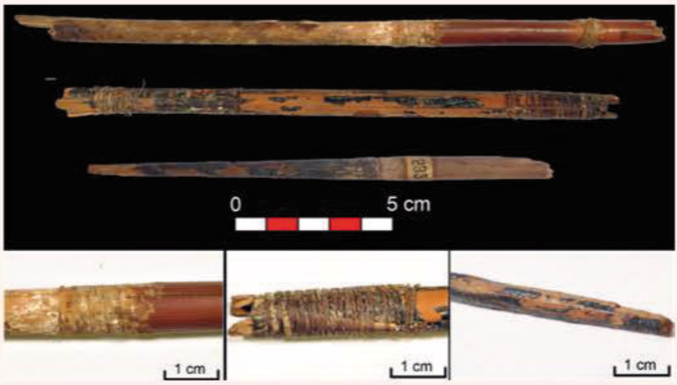
https://bit.ly/3CKq6DM

Earliest evidence for Neolithic-Age archery in Spain



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Neolithic reed and wood arrows recovered from the Cave of Los Murciélagos.

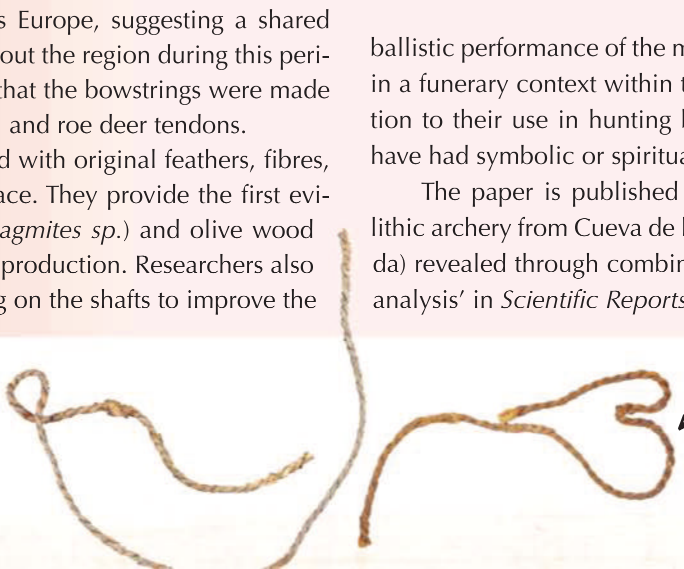
Neolithic people on the Iberian Peninsula were experts in advanced bow- and arrow-making techniques, according to a new study of finds in Spain. The remains of the ancient ranged weapons, dating from 5300–4900 BC, include Europe's oldest sinew bowstrings.

The findings are based on in-depth lab analysis of exceptional artefacts recovered from Cueva de Los Murciélagos, a cave in Albuñol, Granada, Spain. The study, led by Universitat Autònoma de Barcelona (UAB), used advanced microscopy and biomolecular methodologies.

The bow was found to be of yew (*Taxus baccata*) wood, which was widely used across Europe, suggesting a shared technological tradition throughout the region during this period. The analysis also revealed that the bowstrings were made from animal tissues: goat, boar, and roe deer tendons.

The arrows were recovered with original feathers, fibres, and adhesive substances in place. They provide the first evidence for the use of reed (*Phragmites sp.*) and olive wood (*Olea europaea*) in arrow shaft production. Researchers also identified birch bark tar coating on the shafts to improve the ballistic performance of the missiles. The weapons were found in a funerary context within the cave suggesting that, in addition to their use in hunting by the owner, the weapons may have had symbolic or spiritual significance.

The paper is published as 'First evidence of early neolithic archery from Cueva de los Murciélagos (Albuñol, Granada) revealed through combined chemical and morphological analysis' in *Scientific Reports* 14 (2024).



Fragments of animal sinew bowstrings using goat, boar, and roe deer tendons.
© MUTERMUR Project

Archaeologists at work at the site of emperor Qin Shi Huang's mausoleum, where a statue of a senior military commander was found broken into several pieces.
© CCTV

resumed in 2015, Pit No. 2 has also yielded cavalry, crossbowmen, and mixed units.

The mausoleum was constructed over 38 years by an estimated 700,000 workers. Over recent decades, more than 2000 life-sized figures have been excavated from three pits. The site was designated a UNESCO World Heritage Site in 1987.

The Roman army recycled mail

A significant discovery near the Roman legionary fortress of Bonn, Germany, has revealed the organization of the Roman army's recycling and supply systems.

In 2008 and 2012, the LVR-State Service for Archaeological Heritage in the Rhineland in Bonn, conducted excavations to investigate a Roman *vicus* settlement. Archaeologists recovered a 14 kg hoard of mail armour, which comprised at least four different suits based on the observed differences in ring size.

Members of the international research team employed computed tomography (CT) to scan and study the mail. Their findings suggests that the hoard was intended for repair and patching. They argue that the cache likely represents 'donor' mail, which was collected for reuse rather than discarded. This indicates the involvement of local craftworkers in maintaining military equipment on the northern frontier.

The *vicus*, south of the Roman legionary fortress of Bonna, with its own baths, workshop areas, and infrastructure, was abandoned in the mid-third century AD, possibly during a period of systematic dismantling similar to other Roman military sites along the German *limes*. The deposit of mail armour is thought to have been made during this clearance phase.

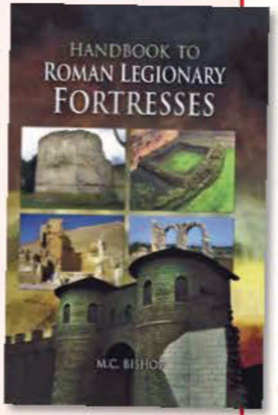
The paper, 'Recycling and repair on the Roman frontier: a hoard of mail armour from Bonn', is published in *Antiquity* (2024), accessible online.

A large mass of third-century AD mail armour discovered at a vicus outside Bonna fortress, Bonn Germany.
© J.Vogel / Cambridge University

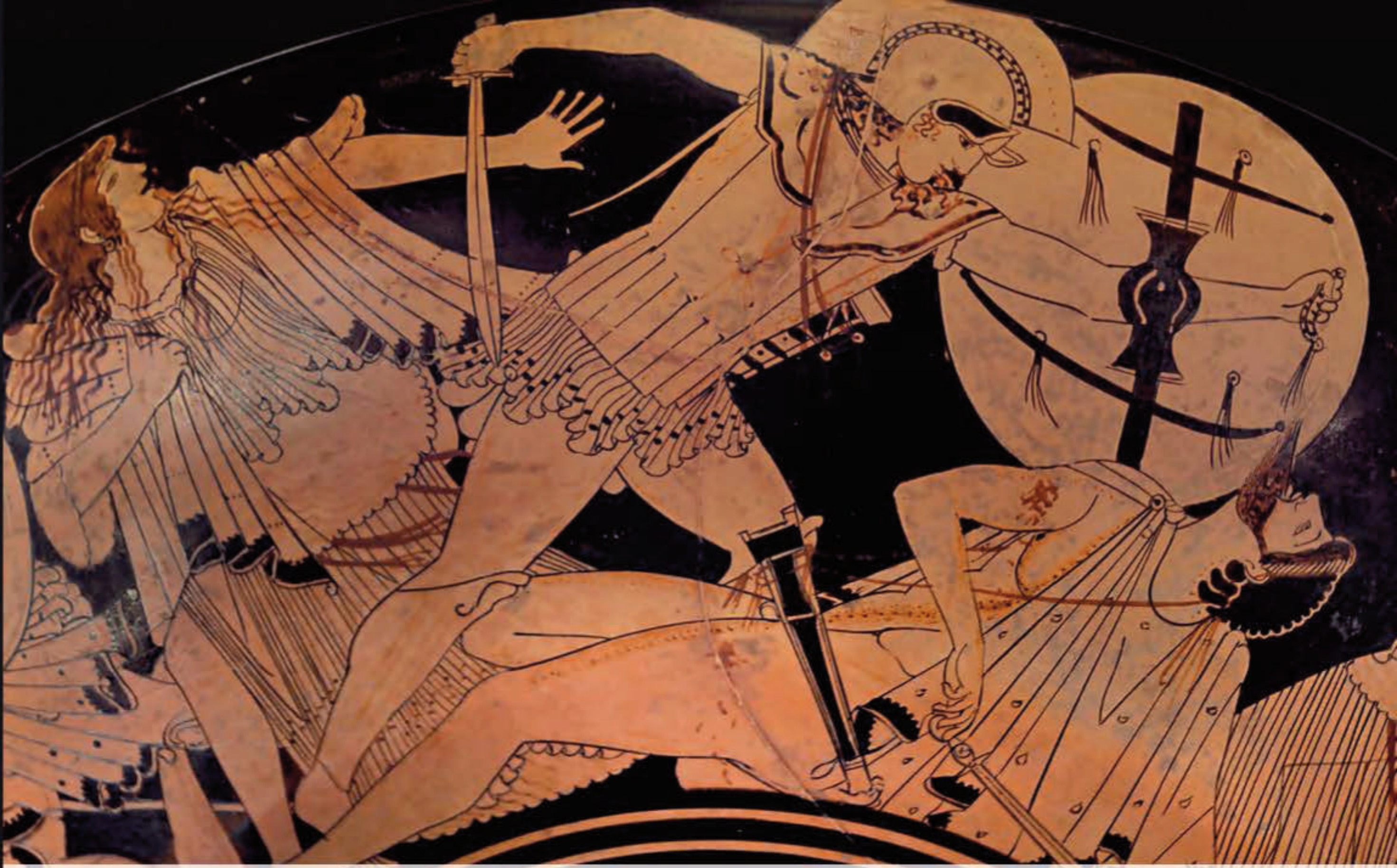
HAVE YOU READ?

By M.C. Bishop

Handbook to the Roman Legionary Fortresses



You know you are in safe hands when the author is M.C. Bishop, a leading name in Roman military archaeology. Here is a reference guide to eighty-five Roman legionary fortresses throughout the former Roman Empire. The expansion of the empire and the garrisoning of its army in frontier regions during the 1st century AD meant Rome's armies began to concentrate in large permanent bases. Some have been explored in great detail, others are barely known, but this book brings together for the first time the legionary fortresses of the whole empire. An introduction outlines the history of legionary bases and their key components. Then follows a referenced and illustrated catalogue of the known forts, each with a specially prepared plan and an aerial photograph. It may be all you ever need and it is an ideal starting point for further study.



Detail of an Attic kylix, ca. 490 BC, showing the sack of Troy. Note the decorated inside of the *aspis*. The bands might carry the very same story.

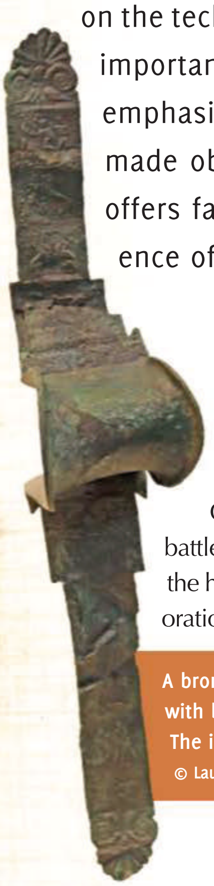
DECORATED PELOPONNESIAN SHIELD-BANDS

HOPLITE STORIES

By Cezary Kucewicz

Modern discussions of Greek warfare traditionally focus on the technological impact of hoplite shields and their importance for the phalanx formation. Relatively little emphasis is placed on the shields as private, custom-made objects. Looking at shields as personal items offers fascinating clues about the individual experience of combat and the mindset of Greek warriors.

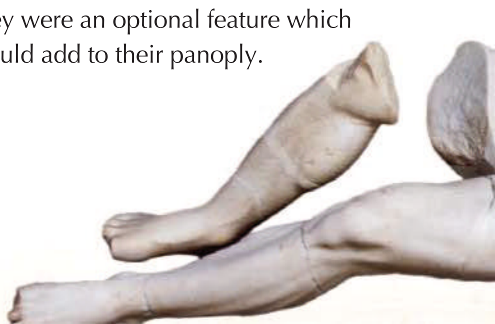
There are fewer images more evocative of ancient warfare than the Greek hoplite. Named after their military equipment (*hoplon*), hoplites formed the backbone of Greek citizen militias in the Archaic and Classical eras (ca. 750–323 BC). Their longevity on the battlefield has been ascribed to their panoply, purchased by the hoplites themselves and often adorned with elaborate decorations. The best-known decorative element was the shield blazon, frequently featuring images of animals or mythical monsters, or the symbol or first letter of the warrior's *polis* (e.g. Heracles' club for Thebans; Λ for Lacedaemonians). It is less commonly known that many shields were also decorated on their obverse side, with small images placed on bands attached inside the shield. Found mostly in the Peloponnese and dating to the Archaic era, decorated shield-bands showcase a fascinating world of images and stories that accompanied individual men into battle.



A bronze *porpax* from Olympia — the central strap of the *aspis* — with both decorative and figurative panels, late sixth century BC. The images inscribed into the bands can just be made out.
© Lauren van Zoonen

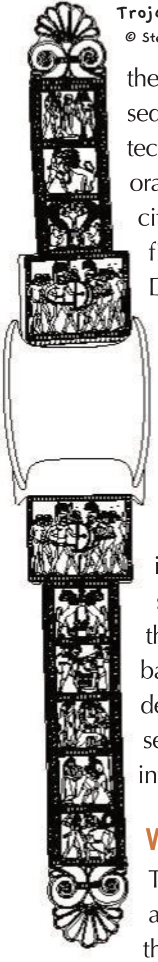
Hoplite shield-bands

Apart from the central arm-band (*porpax*), some hoplite shields were fitted with separate bands which ran vertically from the top to the bottom of the shield. Made from bronze, hoplite shield-bands were attached with small pins to the *porpax* in the centre and the outside rims of the shield. Their specific purpose remains unclear. They could have provided extra reinforcement to the central arm-band or simply functioned as an aesthetic upgrade. Images of warriors on Greek vases only occasionally depict the shield-bands, suggesting that they were an optional feature which hoplites could add to their panoply.



© Jastrow / Wikimedia Commons

Some shield-bands were plain and undecorated. Others were adorned with simple patterns or – most strikingly – decorated with small images, or metopes, depicting figural scenes. Depending on its length, which varied between 75–90 cm, a decorated shield-band featured between five to eight metopes on both the top and bottom side. Made using dies hammered into bronze, their images were pre-arranged in specific sequences. Based on their artistic style and technique, the centre of production of decorated shield-bands has been traced to the city of Argos in the Peloponnese, where the first hoplite shields likely originated.



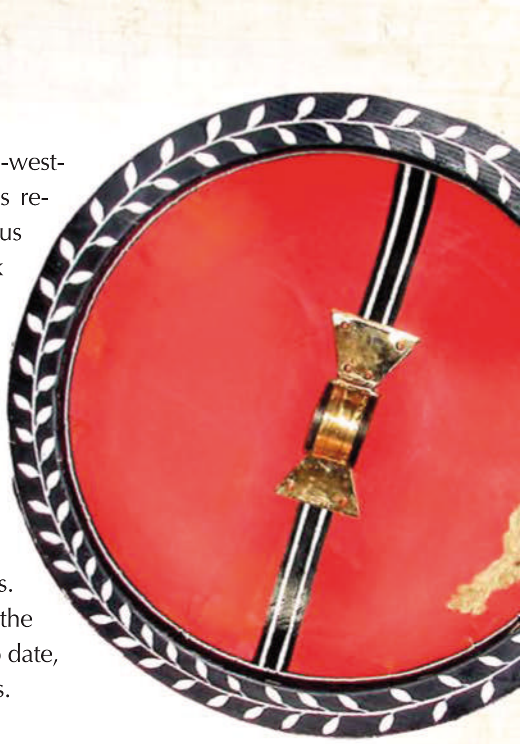
Drawing of the porpax with different scenes from Greek mythology and the Trojan War.
© Steve K. Simons

Decorated shield-bands were items of high artistic quality and undoubtedly had a hefty price tag. The variety of images found on them also suggests that the warriors could choose what scenes they wanted to feature on their bands. Unlike shield blazons, the peculiar placement and small size of the metopes indicate that shield-bands were not designed for display. Being visible only to the warrior holding the shield, the shield-bands can be seen as expensive, personal decorations, which allowed men to carry a selection of images and stories with them into the harsh realities of hoplite battles.

Where to find them?

There are currently over 230 known examples of decorated shield-bands from the Greek world. Most consist of small fragments, though a few fully-preserved shield-bands have survived. Almost all the finds come from temples, where the Greeks dedicated captured weapons and armour. Evidence of shield-bands has been found all over the Mediterranean basin, but most come from mainland Greece, especially the major Panhellenic sites of the Sanctuary of Apollo at Delphi, the Sanctuary of Poseidon in Isthmia and, most importantly, the Sanctuary of Zeus at Olympia.

Today a small town in the north-western Peloponnese, ancient Olympia was renowned for hosting the most prestigious athletic games in antiquity, which took place every four years from 776 BC onwards. In addition to hosting the athletic games, Olympia was also the most important sanctuary for dedicating weapons and armour in the Greek world. First excavated in 1875, the site has yielded an unparalleled quantity of hoplite armour dedicated by victorious *poleis* as a thanksgiving to Zeus. Shield-bands feature heavily among the finds, with over 200 items discovered to date, including rare, fully-preserved examples.



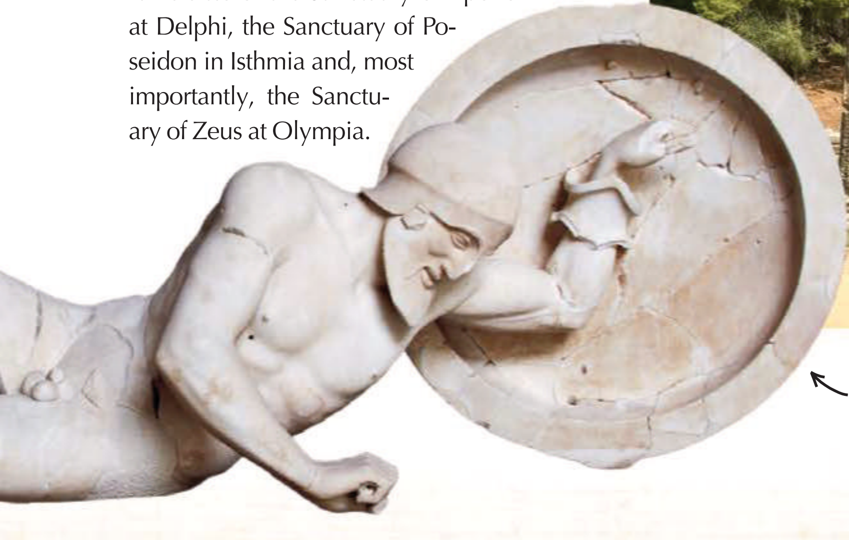
Reconstruction of the inside of an *aspis* with *porpax* and painted shield band.
© Phokion / Wikimedia Commons

Most popular scenes

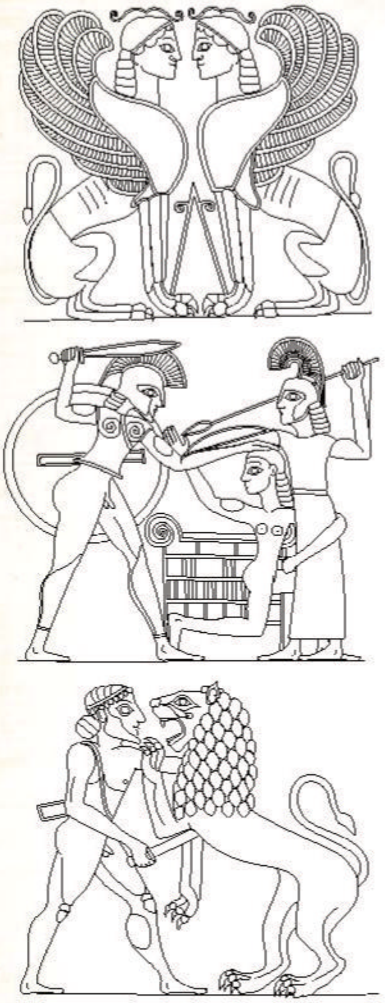
Until now, archaeologists working at Olympia have reconstructed a total of seventeen complete die sequences (stamps to shape the bronze sheet) used to make a shield-band. But since the surviving evidence consists predominantly of partial fragments, most of the sequences remain incomplete, with over 90 separate sequences currently identified. The sheer variety of available sequences implies that warriors had plenty to choose from and could pick their favourite scenes to feature on their shields. Although the order of metopes within each sequence appears to be mostly random, many of them begin and end with an image of heraldic lions or sphinxes.

There are over 80 different scenes identified on the hoplite shield-bands so far. They

The temple of Hera at Olympia. A very large amount of preserved arms and armour was found at Olympia, where it was dedicated to various deities. Oddly, many of the shield-bands were found in the banks for the spectators. The shields had been used as filling!
© Cezary Kucewicz



Sculpture of a dying hoplite from the pediment of the temple of Aphaia. His *aspis* has a *porpax* but no shield-band.
© Ismoon / Wikimedia Commons


Scenes on shield-bands. *(From top to bottom:)* heraldic sphinxes, the rape of Cassandra, and Heracles and the Nemean lion.

© Steve K. Simons

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Running Gorgon	26
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Heracles and the Nemean Lion	22
Horse rider	20
Heraldic sphinxes	17
Zeus and Typhon	17
Menelaus and Helen	15
Theseus and the Minotaur	11
Rape of Cassandra	9
Heracles and Geras	8
The birth of Athena	7
Heracles and Geryon	6
Achilles and Penthesilea	5
Chimera	5
Warrior's farewell	4
The ransom of Hector	4
The suicide of Ajax	4
The death of Priam	4

feature both mythological episodes and images drawn from the everyday life of warriors. The most popular metopes are those depicting the running Gorgon, heraldic lions, and sphinxes. The inclusion of fantastic creatures and beasts on shield-bands was almost certainly because of their apotropaic character. Averting evil and bad luck would have been of great importance on the battlefield. Such images were, therefore, chosen by hoplites to provide them with an extra layer of protection. Other images depicted on the shield-bands are equally revealing of what the hoplites might have thought about before and during combat.

Heracles and mythological heroes

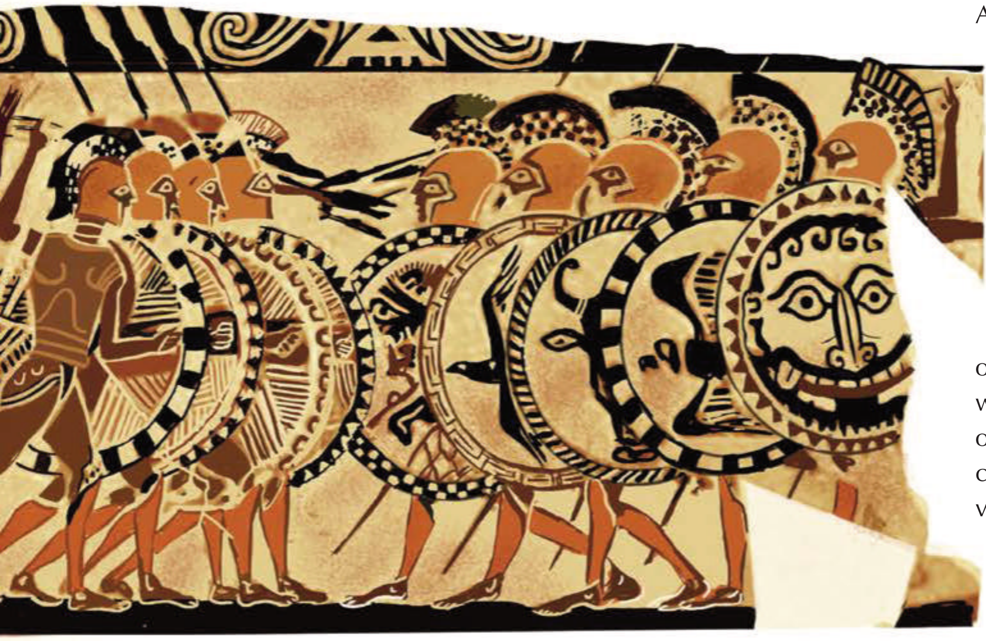
Myths associated with Heracles were extremely popular in the art of Archaic Greece. They appear in over 40 separate shield-band sequences, making Heracles by far the most popular mythological figure of the genre. The most common scenes are the defeat of the Nemean Lion (22), the encounter with Geras, the god of old age (eight), and his fight against the three-headed/bodied giant Geryon (six). Being the embodiment of extraordinary strength and courage, Heracles was a figure to emulate for all Greek hoplites. Stories of Heracles and other heroes like Theseus (eleven) or Achilles (seven), were among the favourites in the Greek world, inspiring warriors to strive for excellence no matter the danger and adversity.

The world of a warrior

While many images on shield-bands were drawn from the enormously rich world of Greek mythology, some depicted more generic scenes from everyday life. Among the most popular ones are images of horses, owned by many of the wealthy hoplites. Other metopes are directly related to the world of the warrior, featuring moving scenes of arming, saying farewell to loved ones before battle and playing dice games on campaign. These images, which appear in no less than thirteen separate shield-band sequences, were reminders of home and the life that the warriors were fighting for. Their prominence provides us with a glimpse into the personal lives of the hoplites, both at home and close to the battlefield.

Violence and transgression

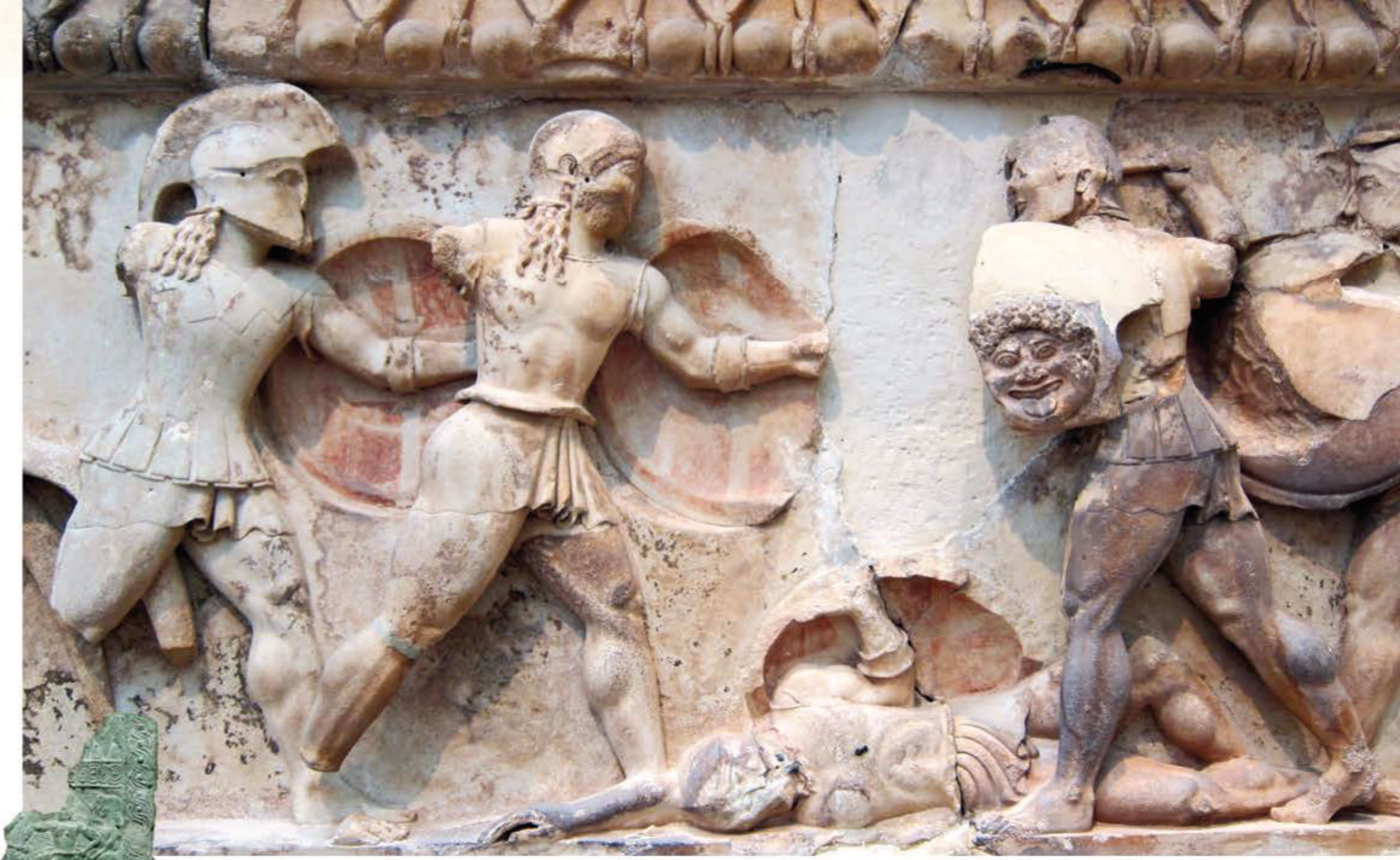
Among the most revealing images are those depicting stories of transgressions and unheroic behaviour. The rape of the Trojan princess Cassandra by the Lesser Ajax during the sack of Troy was the most popular featuring in nine separate sequences. On the metopes, Cassandra is often depicted naked, which heightens the threat of sexual violence and the overall negative overtone of the image. A similar episode is the murder of the young Trojan prince Troilus by Achilles, which appears in three sequences. Such stories of transgressions and sexual violence showcased the cruelty of war, in some cases providing cautionary tales against hubris


The Chigi vase, ca. 650 BC, depicts Greek hoplites carrying shields adorned with shield blazons, which added personal flair and sent messages to the enemy.

© Jose Morán

A variety of undecorated bronze shield-bands from Olympia, each with a porpax.

© Cezary Kucewicz



Detail from the eastern frieze of the Treasury of the Siphnians in Delphi that dates to ca. 525 BC. Shield-bands have been painted on the interior of the hoplites' shields.
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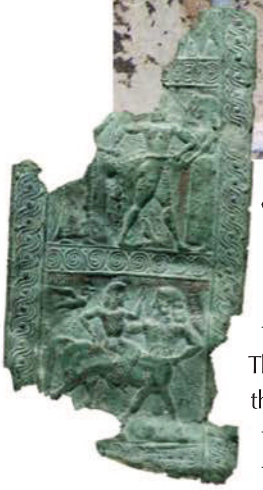

Two metopes from a shield-band fragment – a farewell scene and a scene with a female figure and centaur.
© Cezary Kucewicz

that came with defying the gods. They also served as reminders of the dark fate that awaited the defeated and their families. The latter is powerfully illustrated in the metopes depicting the death of the aged king Priam, brutally killed during the sack of Troy (four sequences).

The motif of sexual violence is also prevalent in the group of images showing an armed warrior forcefully leading a woman away. These images, commonly identified as the scene of Menelaus leading Helen away after the sack of Troy, are very popular on the shield-bands, appearing in fifteen separate sequences. The identification with a specific myth, however, is not always clear. The metopes are characterized by their clear dynamic of power: the warrior is fully armed, wields a sword, and holds the woman by the wrist, which implies a clear sense of coercion and violence. Although rarely mentioned in the sources, the usual fate of women after the sack of a city was to become the property of the victors. The metopes, therefore, could have reminded warriors of the spoils of war awaiting them; equally, they would have been powerful warnings of what happens to the families of the defeated.

Hoplite stories

The scenes on the shield-bands are characterized by their great diversity. As warriors could pick from many different images, their choices tell us a great deal about their personalities, ideals, and values. From the heroic exploits of great heroes like Heracles or Theseus, there to inspire and be emulated; favourite myths, reminding warriors of childhood songs sung to them by their mothers and nannies; pictures of animals and fantastic creatures, helping to avert evil and offer protection from danger; images of riding horses and leaving for war, providing moving reminders of home life; to scenes of wartime atrocities, murder, and sexual violence, serving as dark reminders of what happens to those who end up on the losing side. Altogether, the shield-bands offer us an enormously rich tapestry of stories which Greek hoplites took with them into battle. AW

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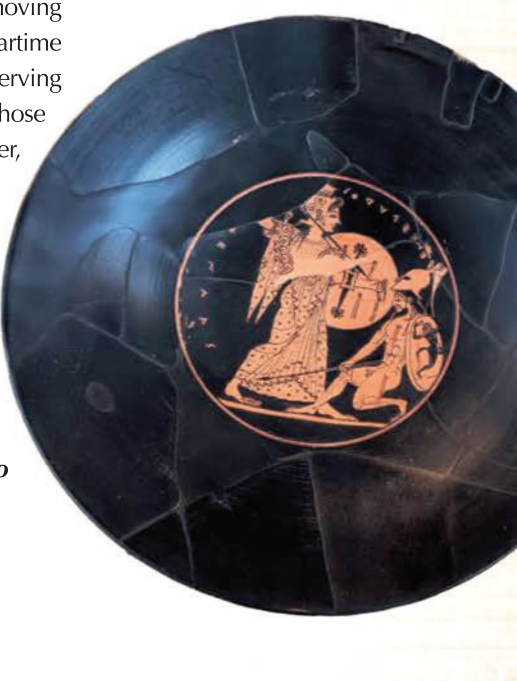
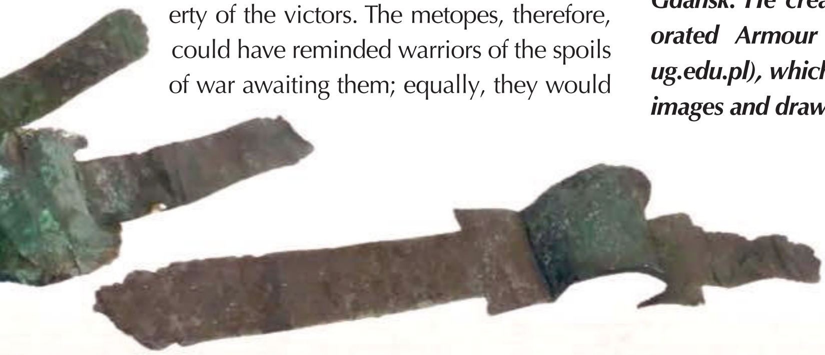
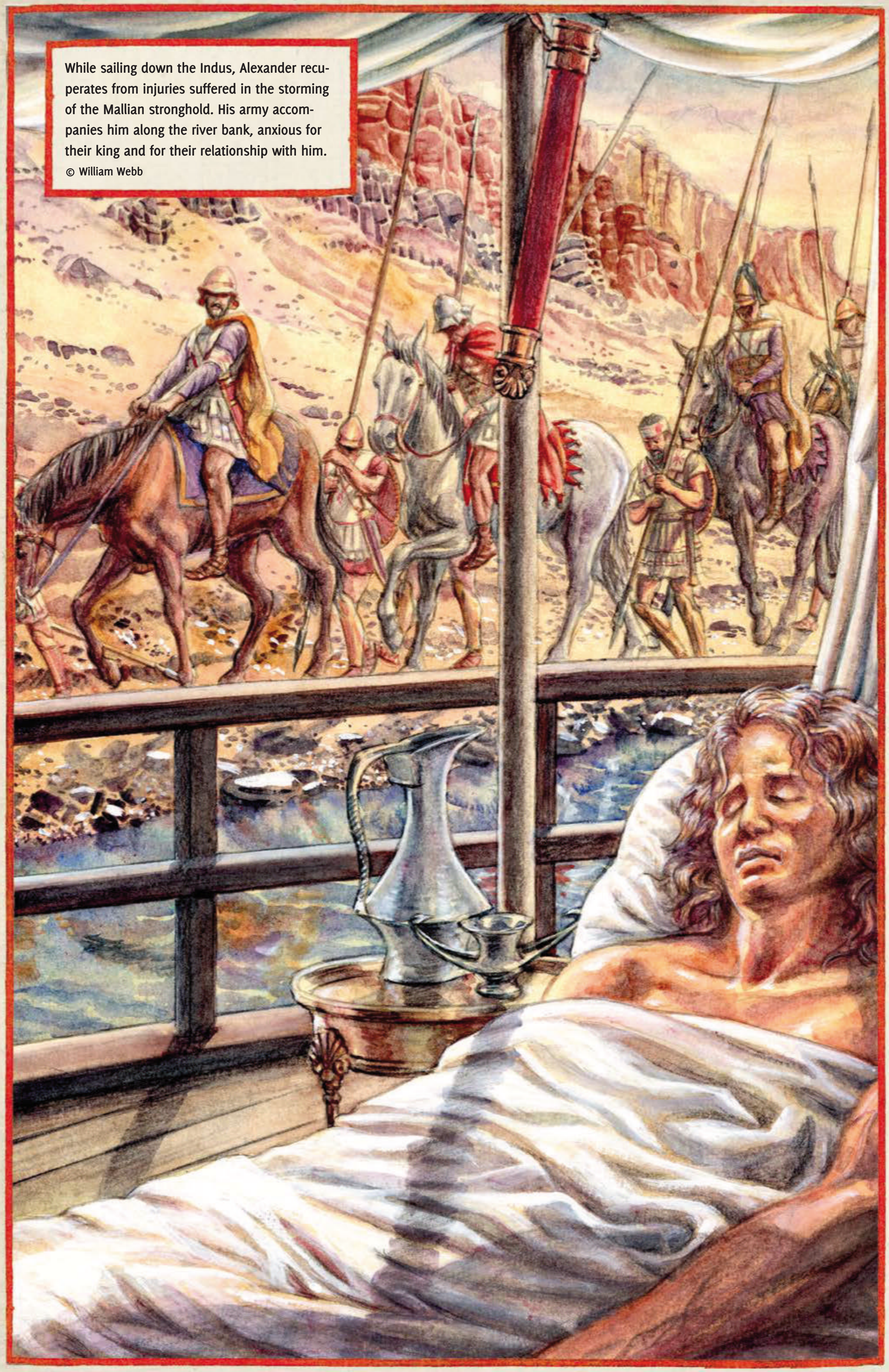
Red-figure plate, ca. 525 BC, now in the Louvre, Paris. The goddess Athena is shown carrying an *aspis* with a decorative shield-band.
© Shonagon / Wikimedia Commons







While sailing down the Indus, Alexander recuperates from injuries suffered in the storming of the Mallian stronghold. His army accompanies him along the river bank, anxious for their king and for their relationship with him.

© William Webb

ALEXANDER'S FINAL YEAR IN INDIA

TRAGEDIES OF TRIUMPH

By Tim Howe

After his fourth and final 'great' battle at the Hydaspes in 326 BC, Alexander's winning streak came to an end. Alexander's army seemed to have been thrown back into the bad old days of 328/7, facing insurgencies and internal disputes and making little progress to pacify and rule his newly-conquered lands.

Yet the campaign in the Indus Valley was different. There are many possible reasons, but what is certain is that after the victory over Poros the Macedonian army was less gregarious, less keen to rush into the unknown, which, together with the infamous Indian monsoon, worked against morale. We have a first-hand account of all of this through the eyewitness account of Ptolemy, as reported by Arrian.

Crossing the Acesines

Flush with victory, and buoyed by a seemingly-powerful new ally in Poros, Alexander roused his weary men to conquer the peoples across the Hydaspes (Jhelum) River. Initially, the weather proved the real enemy. Crossing the rain-swollen Acesines (Chenab) River offered a major challenge. Much of the army would float over on inflated skins while the rest would board the boats Alexander had built earlier at Taxila. Those on skins had little trouble, but some of the boats were lost, dashed on the rocks. Once across the river, Alexander divided his forces again in order to secure his supply lines, sending Poros back to his own country to gather supplies. The 'Autonomous Indians' who inhabited the region were not a united people, as their name implies, but scattered across the district, based around fortified hill towns. In order to deal with these groups concurrently, Alexander further divided his forces, sending Hephaestion to contend with the Bad Poros, a cousin of Poros named so because of his history of treachery, while Alexander, Ptolemy and the bulk of his army moved on to the city of Sangala. To secure the supply lines back to Poros and guard the Acesines river crossing, Alexander ordered Craterus and Coenus to stay behind.

Hephaestion took two *taxeis* of infantry, his own and Demetrios's regiments of cavalry, and half of the archers. He quickly dealt with the Bad Poros, handing both the territory and any independent Indian tribes living near the banks of the Hydraotes (Ravi) River over to Poros. Alexander's strategy here seems in part informed by tension within his command council – Craterus and Hephaestion were not getting along and Ptolemy, eager to shine in the absence of others, seems to have encouraged this antagonism. Meanwhile, Alexander and Ptolemy, with the bulk of the Macedonian army, crossed the Hydraotes without any issues. Resistance was minimal as most of the inhabitants had rallied under the leadership of the Kathaians and had gone to ground at the fortified hill town of Sangala. According to Ptolemy, these Kathaians were especially skilled at war and considered by all of their neighbours to be a serious foe (Arrian, *Anabasis* 5.22.2).

The siege of Sangala

The Kathaians and their allies had fortified the city well, placing their wagons in a circle to form a barrier along the lower slopes of the hill and constructing a second line of fortifications beyond the wagons, which together with the walls of the citadel itself created three levels of protection. When Alexander arrived, he sent his horse archers against the wagons, ordering them to ride along and harrass the enemy from a distance, so that the Indians might not be able to make any counterattack before his army was in position. On the right wing, Alexander positioned his cavalry and Cleitus' *hyparchy* of cavalry; next to these were Alexander's own personal troops, the hypaspists and the Agrianians. Perdiccas was stationed on the left with his own *hyparchy* and the *taxeis* of Foot Companions. After their mission to provide covering fire was complete, Alexander divided the horse archers into two parts and placed them on each wing. While Alexander was arranging his forces, the infantry and cavalry of the rearguard came up. These, he divided into two parts and stationed them on the wings. Alexander himself would lead the cavalry on the right.

Without difficulty, the Macedonians forced the Indians from the first row of wagons, but then stalled as the Indians fell back to the second line of fortifications. With less discipline than before, the Macedonians pushed the Indians into the walls of the city at the top of the hill just as night fell. During the night, Alexander camped with his infantry along as much of the fortifications as they could occupy, while the cavalry patrolled the gaps. At this point, the Macedonian king did something curious – he did not take the lead in the assault. Instead, Alexander placed Ptolemy in charge of the king's personal troops – three *chiliarchies* of the hypaspists, all the Agrianians, and one battalion of archers. Ptolemy's job was to hit the Indians as they attempted to open their stockade, at which point Alexander and the rest of the Macedonian army would come up and play anvil to Ptolemy's hammer. All happened according to plan. In the final stages of battle, Poros arrived, bringing with him the rest of the elephants and 5000 Indian allies. With the assistance of the elephants, Alexander was able to bring his siege engines up to the wall. But before the engines could be of much use, the city was captured by direct assault by sapping the city wall and placing scaling ladders.

According to Ptolemy, 17,000 Indians were killed, and over 70,000 were captured (Arrian, *Anabasis* 5.24.5). Alexander had lost a little less than 100 men, but this belied the real cost, as Ptolemy notes that the number of the wounded was greater than the proportion of the slain – more than 1200, among whom were the Bodyguard Lysimachos, the later Diadoch and ruler of Thrace, and several other officers. This was a big hit to morale. Yet Alexander did not pause to allow his men to recover; the king wanted to punish all of the allied cities who had supported the Kathaians. This disregard for the health of his army, and the push to kill as many of the enemy as possible in punitive raids characterized the Indus Valley campaign and set it apart from the previous strategies. In the Indus, Alexander shifts from conquest and rule to slash and burn.

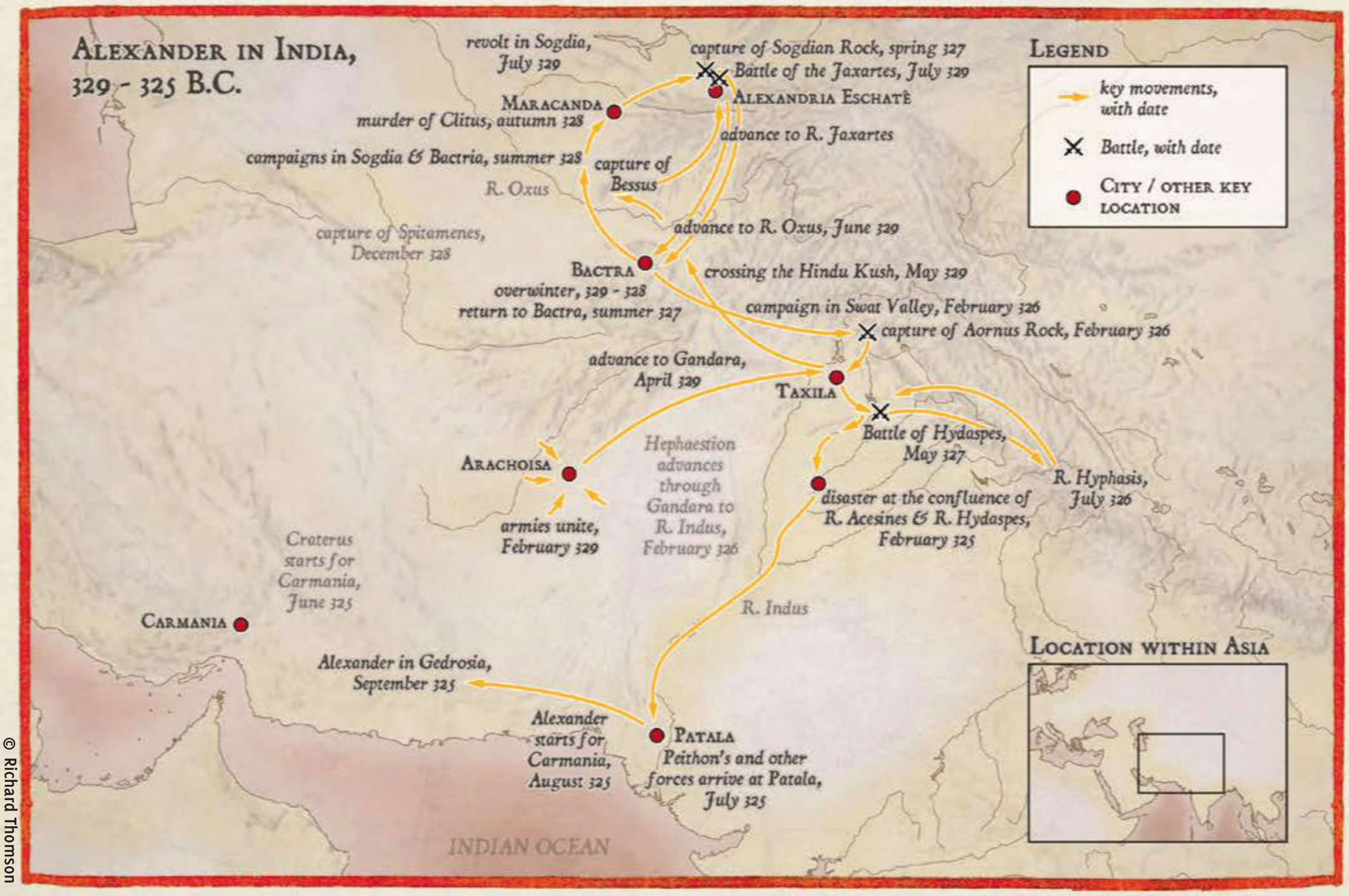
The march to the Hyphasis

Perhaps because of the lack of able officers, Alexander sent his personal secretary Eumenes, with 300 cavalry, on his first military campaign. His task: approach the two cities that had joined the Kathaians and demand their surrender. The Indians refused and abandoned their cities, which only created more work for Alexander, who now had to send various forces to chase them. As a message to others, he razed Sangala and the other cities to the ground. Unfortunately, this policy only inspired more resistance. The shift in strategy, however, is clear. Alexander would not rule this area in the manner he had done elsewhere. He would not set up a formal infrastructure of civilian and military rule; he would not settle Macedonian or Greek soldiers to garrison a rebellions and fractious region. Instead, Alexander would kill those who opposed him and hand everything that survived his army over to Poros.

After dealing with Sangala and its allies, Alexander proceeded east to the next Indus tributary, the Hyphasis (Beas). Then, in a move that has confused scholars from antiquity to the present day, Alexander called a halt to his advance, stopping on the western bank of the Hyphasis in July 326 BC, despite the lack of immediate danger. Here, he discoursed with his men, and then, according to Ptolemy, planted altars to the gods on the bank of the river, perhaps to mark the boundary of his empire as his Achaemenid predecessor Darius the Great had done (Arrian, *Anabasis* 5.28.4). He then announced that the army was going home. The Monsoon was in still in full force at this point, and whatever the reason for the retreat, I am sure no one was disappointed to be leaving the now-sodden Indus Valley – though 'going home' was a rather generous way of putting what happened next. Alexander would bring his men home by a most difficult route, the first leg of which would be down the Indus in boats. But this was not a war fleet, rather a rag-tag collection of horse and troop transports, numbering over 2,000, according to Ptolemy, which took September and October to assemble and provision (Arrian, *Anabasis* 6.2.4). Once they got underway, progress was slow, as the fleet kept pace with the infantry of Hephaestion and Craterus who marched down opposite banks. Clearly, their rivalry had not been resolved.

The Mallian campaign

Although the Monsoon had ended in September, the rivers were still high and casualties among the fleet were not small


ALEXANDER IN INDIA,
329 - 325 B.C.
revolt in Sogdia, July 329
MARACANDA
murder of Clitus, autumn 328
campaigns in Sogdia & Bactria, summer 328
capture of Bessus
R. Oxus
capture of Spitamenes, December 328
BACTRA
overwinter, 329 - 328
return to Bactra, summer 327
capture of Sogdian Rock, spring 327
Battle of the Jaxartes, July 329
ALEXANDRIA ESCHATÊ
advance to R. Jaxartes
advance to R. Oxus, June 329
crossing the Hindu Kush, May 329
campaign in Swat Valley, February 326
capture of Aornus Rock, February 326
advance to Gandara, April 329
TAXILA
Battle of Hydaspes, May 327
R. Hyphasis, July 326
disaster at the confluence of R. Acesines & R. Hydaspes, February 325
ARACHOISA
armies unite, February 329
Hephaestion advances through Gandara to R. Indus, February 326
Craterus starts for Carmania, June 325
CARMANIA
R. Indus
Alexander in Gedrosia, September 325
Alexander starts for Carmania, August 325
PATALA
Peithon's and other forces arrive at Patala, July 325
INDIAN OCEAN
LEGEND
key movements, with date
Battle, with date
CITY / OTHER KEY LOCATION
LOCATION WITHIN ASIA

© Richard Thomson

– the confluence of the Hydaspes and the Acesines proved particularly treacherous. This steady pounding by the river, together with all of the recent setbacks and lack of any fixed goal other than to clear a swath on the way home, took a heavy toll on the army's already low morale. Still, Alexander pushed on, making his bloody way through the downstream tribes of the Oxydrakai and Malli. In part, this made good logistical sense, for these 'enemies' of Poros would need to be brought under Poros' sway before Alexander could truly head home, if he wanted to keep his supply lines secure and Poros loyal.

Fortunately, the farther the army proceeded downstream, the wider and deeper the river became. By late December, the current was no longer so dangerous. At this point, Alexander moored his fleet on the right bank and considered his next moves. As he had done earlier, he divided his forces, sending Nearchus with the fleet, while he himself would set out three days later with the infantry and cavalry. Still keeping Craterus and Hephaestion apart, Alexander moved Craterus, all the elephants, the *taxis* of Polyperchon, the horse-archers, and Philip across the river to guard the western bank. The king then divided his own troops into three parts: one he gave to Hephaestion, with orders to depart immediately and prepare the way south; the second, and largest, Alexander reserved for himself, delaying his march by five days so that Hephaestion would have a healthy lead; the third he gave to Ptolemy to serve as a rearguard, with orders to depart three days after the main force. Unfortunately, the Mallians retreated into their fortified towns as the Macedonians approached and Alexander was forced to take these as he came upon them, killing many and taking few prisoners. This state of terror soon bore its bitter fruit and the remaining Mallians abandoned their fortifications for the main city of the region. Alexander sent Peithon and Demetrios with a force of cavalry to hurry them along, hoping to box all of the Mallians in one place and fight a final decisive battle.

When Alexander arrived at the Mallian refuge, he surrounded the city and again divided his army, commanding one part himself and placing the other under Perdiccas. As he had done throughout the ten-year campaign (with the exception of Sangala), Alexander led the charge. When he arrived at the walls, he ordered his men to place ladders and go over the inner wall. Frustrated by their hesitancy and lack of progress, Alexander himself scaled a ladder with only Peucestas, his shield-bearer, for support. Seeing this, Leonnatos the Bodyguard and the rest of the king's guards scrambled up the same ladder. At this moment, the ladder broke from all the weight. Fearing that the Macedonians would abandon the assault, Alexander leaped down among the enemy, giving his army no choice but to follow. This seems to have been a calculated act and Ptolemy, via Arrian, reports that Alexander no longer trusted his men (Arrian, *Anabasis* 6.9.3). The army that had conquered Persia was no longer a healthy force, mentally or physically – loyalty was one more casualty of this brutal campaign.

When Alexander hit the ground, although Peucestas, Leonnatos, and the others were on their way, he was alone and vulnerable. As a result, an enemy arrow hit him in the chest, likely causing a pneumothorax (collapsed long) – Ptolemy reports that air was breathed out from the wound together with the blood (Arrian, *Anabasis* 6.10.1). After the king had fallen, Peucestas rushed up to defend him, holding the sacred shield Alexander had taken from Achilles' tomb at Troy over him. Close on Peucestas' heels was Leonnatos. Both these men were themselves wounded, and Alexander was now nearly fainting from loss of blood. Hearing what had happened to their king, the rest of the army was enraged and poured over the wall. In their fury they utterly defeated the Mallians and sacked the town. In the spot where he fell, Alexander was given emergency surgery by the physician Critobulus of Cos. The king's Companions made sure that his litter was displayed so the soldiers would know he still lived. Despite this, rumours persisted that he was already dead. The army was completely demoralized. All of the momentum of the campaign seemed gone and Alexander accepted the submission of the Oxydrakai, allies of the Malli, without a fight. Pacifying them would now be Poros' problem.

The end of the campaign

By the end of February, Alexander had recovered enough to sail south. The Indian leader Musikanos, who ruled the lands south of the confluence of the Indus and Hesudrus (Sutlej) rivers, surrendered as Alexander's fleet approached his lands. As with Poros, Alexander gave Musikanos back his lands and confirmed him as ruler of the region. Sailing further south, Alexander met resistance from Sambus, leader of the Indians west of the southern Indus. Supported by religious leaders of the region, he posed a real threat, so the Macedonian army sacked the regional capital, Sindimana, and massacred all within. But before Alexander could take stock of his victory, Musikanos revolted. Alexander sent Peithon to put down the rebellion, which he quickly did, crucifying Musikanos and his Brahmans. As a reward for his loyal service, Alexander confirmed Peithon as satrap of the region. It was now June 325 BC and the retreat to the heartland of the Persian Empire had begun. Craterus was ordered to cross the mountains with a large number of veterans, while Alexander sailed with the fleet to the mouth of the river. Hephaestion returned to his position patrolling one bank while Peithon took Craterus' place on the other. All the peoples they met gave no resistance and Alexander, perhaps now weary of battle, left them alone.

Alexander's final year in India had been a disaster. The king had secured little if any booty, placed no garrisons, collected few real allies, and frustrated by friend and foe alike, had descended into terrorism and murder, which would ensure that the region remembered him as an occupier and enemy. The Indus campaign had taken a massive toll on both Alexander's men and his own body. His march through Gedrosia, one of the most dangerous deserts in the world, was more a retreat than a triumphal process home. AW

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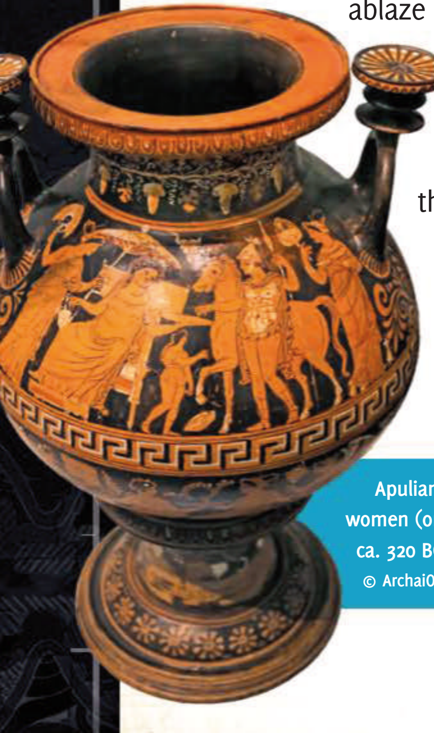
The Lagrasta Hypogeum in Canosa di Puglia, one of the burial chambers excavated in the nineteenth century that gave us the sources for Daunii.

PYRRHUS' ITALIAN PESTS

THE DAUNII AT WAR

By Velite Aquila

In 279 BC, a force of Daunians from Arpi numbering 4000 infantry and 400 cavalrymen, allies of the Romans, found themselves behind the camp of Pyrrhus of Epirus during the battle of Asculum. Upon realizing the lack of men defending the area, they soon surrounded and looted the camp, setting it ablaze before a relief force sent by Pyrrhus could come to the rescue. This impressive feat notwithstanding, the Daunii and their soldiery are rarely visualized despite the treasure trove of art they left behind.



Apulian red-figure lèbes vase in typical Daunian shape — two women (one enthroned) and an armoured hoplite leading a horse, ca. 320 BC (München, Staatliche Antikensammlungen DV 77).
© ArchaiOptix / Wikimedia Commons

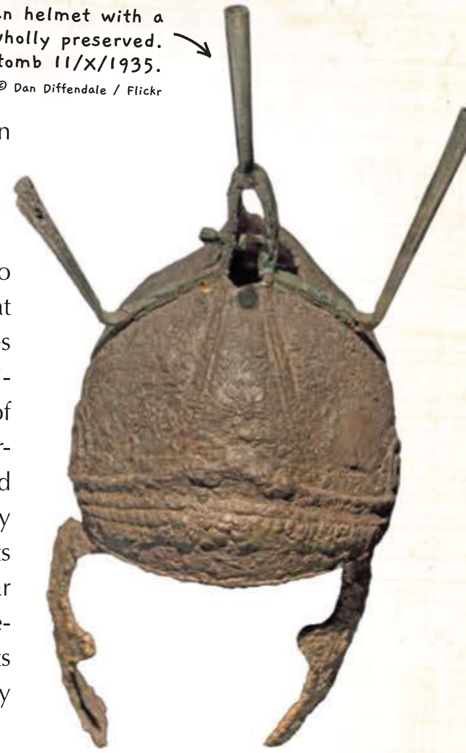
The Daunians were an Iapgyian tribe from the region of Daunia in what is now northern Apulia (southeastern Italy). Descendants of Illyrian migrants, by the late 4th century BC they had been influenced by the Italic tribes surrounding them as well as the Hellenistic Greeks coming in from the south.

From what was once the ancient towns of Canosa and Arpi comes an artistic treasure trove consisting of Canosan-style pottery. Used for funerary purposes, these pots had polychrome scenes of gods, goddesses, myths and warriors. These pots and vases also had terracotta figurines attached on and around the sides, depicting polychrome warriors. These figurines were often cavalrymen, which bear obvious witness to their Italic and Hellenistic influences. Greek style Phrygian, Attic and Boetian helmets are visible on many of these figurines, yet italic Montefortino-type helmets are the most common. Many of these Montefortino helmets feature three holes on the helmet, likely the attachment point for fragile feathers on the figurines, or trident crests.

On some curious riders from Arpi the Montefortino helmets clearly have horns, yet their short, rounded shape does not match with any other known styles. This

Bronze greaves found with an iron cuirass and helmet in tomb 11X/1935.
© Dan Diffendale / Flickr

Bronze obol from Canusium, Apulia (modern Canosa di Puglia), 250–225 BC, with lancer on horseback.
© cngcoins.com



Iron Italo-Phrygian helmet with a trident crest-holder wholly preserved. Found in Canosa, tomb 11/X/1935.
© Dan Diffendale / Flickr

could simply be an artistic limitation as on such small figurines, realistic representations of thin horns would've been easily broken off, even during production of the vase.

Many of these riders wear muscle cuirasses, seemingly the most popular type of cuirass in Apulia. On rare occasions the riders are depicted wearing tube and yoke armour which are closer to Hellenistic types with longer and more numerous pteryges and thinner shoulder pieces rather than italic types.

Many of these helmets and cuirasses are painted light blue. This might represent iron or silvered equipment. The iron hypothesis is supported by a panoply from a Canosan tomb, 11/X/1935, which has an incredibly rare iron helmet of the italio-phrygian type with a well preserved trident crest. An iron cuirass from Greece shows that iron armor despite its rarity was in use in Hellenistic armies in Greece from the period. Another possible interpretation is the adoption of the Greek custom of painting armor like that seen on the soldiers in the Agios Athanasios tomb.

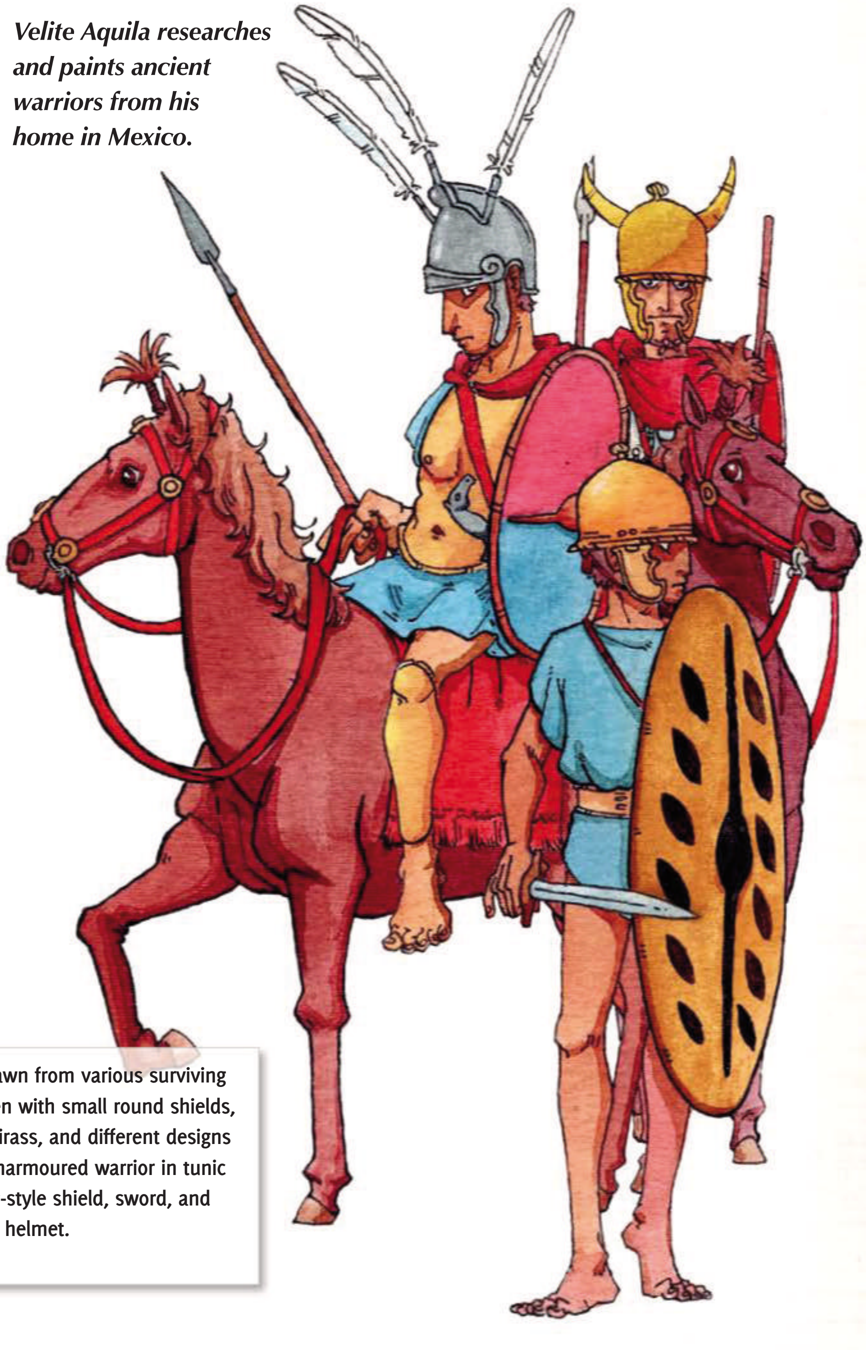
Warriors on askos vases from Canusium are often cavalry, but (unarmoured) infantry are also depicted (270–200 BC).
© Sailko / Wikimedia Commons

These cavalrymen are often depicted as lancers, though javelins are known from the aforementioned tomb. Swords were likely Greek-style *xiphoi*, along with *kopides*. A fresco from farther south in Messapia shows a Hellenistic style *kopis* with a horse-head handle. Shields for cavalrymen are split between larger and smaller round shields. A rider with shield depicted on a polychrome vase from Arpi currently in private collection seems to have an iron umbo. Colourful reds, pinks, and blues color these shields.

Infantrymen are sometimes depicted as hoplites, yet a number of *thureophoroi* depictions are known. Montefortinos are by far the most commonly depicted helmets here, bearing a striking resemblance to a contemporary Roman legionary. Body armor is rarely depicted on infantrymen, who are often shown only in tunics. What little is seen ranges from a Samnite style bronze belt to perhaps iron cuirasses. Greaves are commonly depicted, yet once again represented in blue.

A panoply from tomba di Lavello 669 shows a contemporary panoply, dated to the latter half of the fourth century BC that matches many of the terracotta figurines closely: a Montefortino helmet, muscle cuirass, greaves, bronze belt and a number of spearheads. A piece of horse armour survives, but as objects in the tomb were moved around during excavation, and the panoply was the second deposition in the burial, its dating is unknown. This panoply is a clear physical representative of the terracotta depictions, down to the often obscure aspects of their dress as the bronze belt is rarely seen: a belt is not worn over armour. AW

Velite Aquila researches and paints ancient warriors from his home in Mexico.



Daunian warriors drawn from various surviving sources — cavalrymen with small round shields, greaves, muscled cuirass, and different designs of helmet; and an unarmoured warrior in tunic with an oval *thureos*-style shield, sword, and bronze Montefortino helmet.
© Velite Aquila

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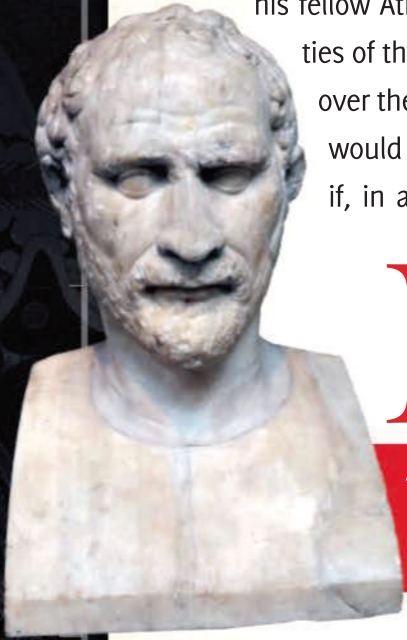
The ruins of the Arcadian Gate of Messene in the Peloponnese, built after the battle of Leuctra (371 BC) on the orders of Epaminondas.

FOURTH-CENTURY GREEK INNOVATIONS

WAR IS A VIOLENT TEACHER

By Roel Konijnendijk

"While great progress has been made in practically everything, and nothing is similar now to the way it was before, I think nothing has advanced and improved as much as the art of war." Demosthenes said these words in 341 BC as a warning to his fellow Athenians to not underestimate the capabilities of their enemy, Philip of Macedon. Looking back over the last few generations, many of his listeners would have agreed that war had changed — even if, in as many ways, it had remained the same.



A Roman-era marble bust of the Athenian orator Demosthenes, copied from a Greek original made by Polyeuctos in ca. 280 BC.

© Lauren van Zoonen

For the sake of his speech, Demosthenes overstated the contrast between the Peloponnesian War and the warfare of his own day. Greeks had been noble then, he claimed; they fought fair and limited conflicts and fielded only brave citizen militias. Philip had ruined that beautiful tradition with his year-round campaigning, his combined-arms armies, his siege trains, and his mercenaries. We should not be misled by Demosthenes' nostalgic picture; its purpose was to paint Philip as a corrupting force and to warn the Athenians to not treat him like just another city-state rival. In reality, the Greeks had introduced all the things Demosthenes blamed on Philip. The time since the Peloponnesian War had indeed been a period of major advances in the art of war, not least those pioneered by Athens itself in its constant wars to restore the power it had lost.

Pay to play

The fourth century is known for some spectacular military innovations, but we cannot truly understand these without the more fundamental change that made them possible. If the Peloponnesian War taught the Greeks anything, it was that "war is not a matter of arms, but of money, which makes arms useful" (Thucydides, 1.83.2). The Athenians had used their imperial treasury to fund warfare on a scale never before seen in the Greek world, and to keep it going for decades. Only the financial support of the Persians finally al-

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lowed the Spartans to defeat them. From then on, it was clear that only a state with money to spend could hope to maintain its freedom, let alone expand its influence over others. To avoid becoming a victim to wealthier rivals, Greek states did what they could to organize their finances and acquire more cash.

At first, both Athens and Sparta tried to replicate the system of tributary subject allies that had been the source of the Athenians' unprecedented revenues. But this was, understandably, unpopular with states that found themselves subject to tribute, and the terms of the King's Peace (387/6 BC) made it impossible without invoking retaliation from Persia. Other means to pay for war had to be found. Cities levied what taxes they could, solicited war funds from their allies, offered special honours to spontaneous benefactors, and constantly petitioned the Persians for money. The Athenians intensified their mining operations at Laurion, regularized their property tax, levied tolls and harbour dues on the sea lanes they controlled, and reformed their system of liturgies, in which the richest citizens were directly burdened with the cost of equipping and crewing triremes. In the 370s BC, the Athenians set up the mutual defence pact known as the Second Delian League, which did not levy tribute but merely collected 'contributions' from its members – a thinly veiled attempt to restore Athens' imperial status and revenues, but one that would nevertheless endure for four decades. The great tyrants of the age, meanwhile, stole or confiscated what they could not get through the regular revenues of the states they ruled.

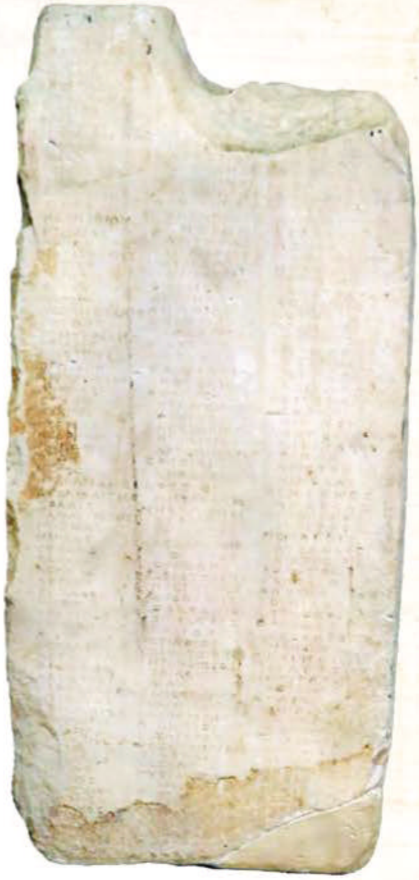
The pilos helmet became common during the Peloponnesian War – it was simpler and cheaper to make than other types.
© The Metropolitan Museum of Art

Over the course of the fourth century, the importance of money gradually concentrated military power in the hands of the largest, most affluent states. The Greek cities were always likely to lose this race against federations and kingdoms that spanned larger territories and drew on greater resources. By the end of the century, hardly any single city had the means to stand up to the professional armies of the Hellenistic kingdoms that had emerged in the wake of Alexander the Great's death. But for a while, at least, the Greeks were at the forefront of military innovation as their growing revenues unlocked new ways of waging war.

New weapons

Military technology remained broadly the same throughout Greco-Roman antiquity; there were few improvements in the materials and designs used to make weapons, armour, fortifications, warships, and the like. But in 399 BC, when the tyrant Dionysius of Syracuse brought together craftsmen from all over Sicily and offered them rewards to develop new weapons for his impending war with Carthage, it promptly spawned two major innovations.

The first was artillery. The Syracusan inventors probably began with the simple *gastraphetes* ('belly bow'), which allowed a man to pull back the string with both hands; but in the decades that followed, this nascent idea was turned into far larger and more complex designs that could shoot heavy bolts and stones at targets hundreds of metres away. These early types of torsion artillery would prove most effective in siege warfare. Fortifications had to be redesigned to withstand the force of bolt-shooters and stone-throwers, typically by replacing traditional mudbrick superstructures with more durable walls built top to bottom out of dressed stone. The walls of new cities like Messene in the Peloponnese (built in 370/69 BC) had stone towers with large windows in their upper stories to


Attic stele with an inscription listing Athenian mercenaries, ca. 300 BC. The list includes peoples from as far away as southern Italy, Cyrenaica, and Lycia (Epigraphical Museum, Athens, *IG* II2 1956).
© angry / Wikimedia Commons

A graffito from Delos that may depict a heavy polyreme with multiple oarsmen per oar, one of several new styles of vessels available to navies of the fourth century.
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Bronze spearhead found in Pella, ca. 400–375 BC, dating to a time before the development of the *sarissa*.
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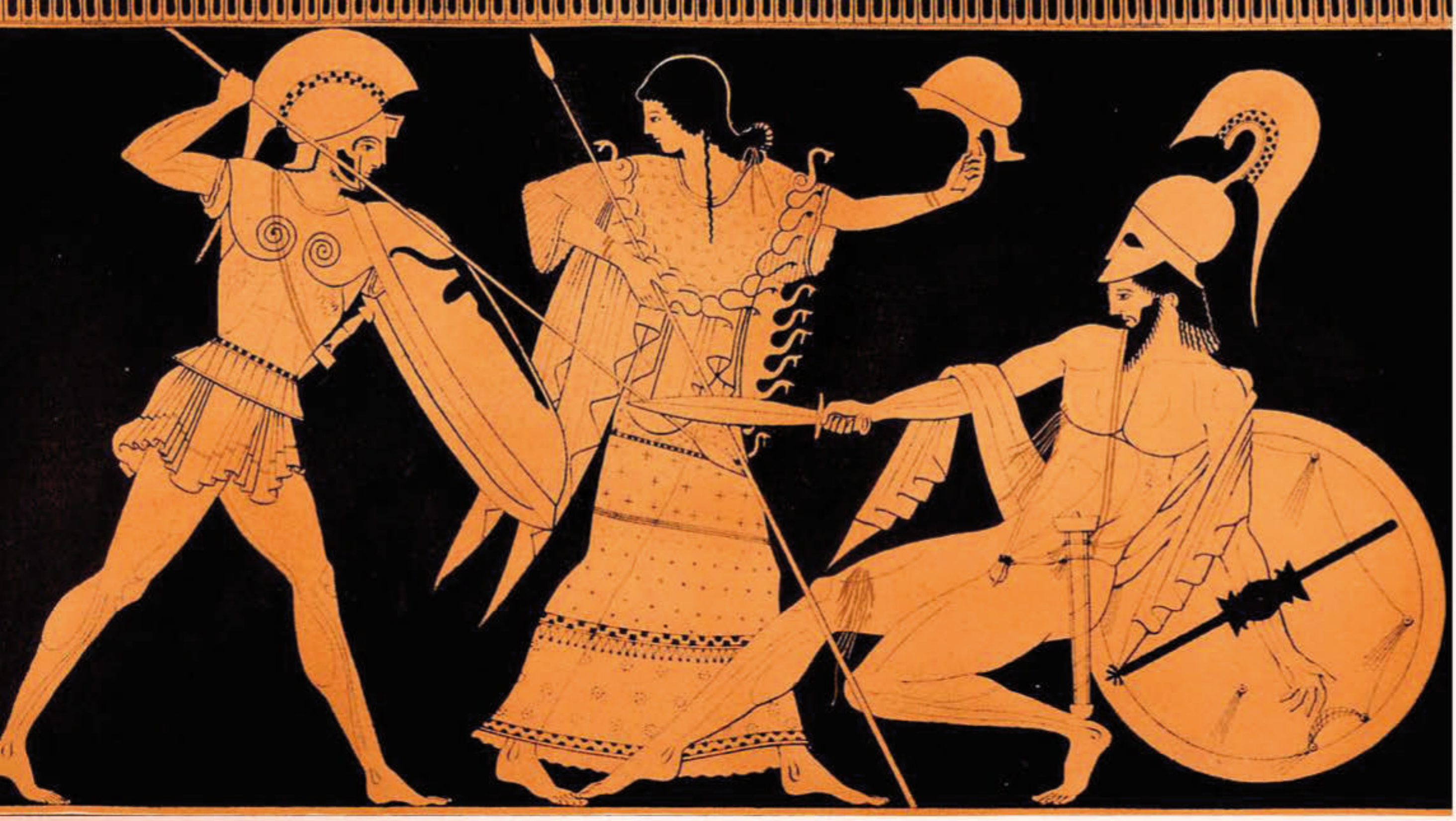

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Frieze from a vase depicting Achilles fighting Hector, in the presence of Athena, ca. 490 BC — from Vulci. Presumably Achilles here wields his slaying spear.

Super weapons for super men in the *Iliad*

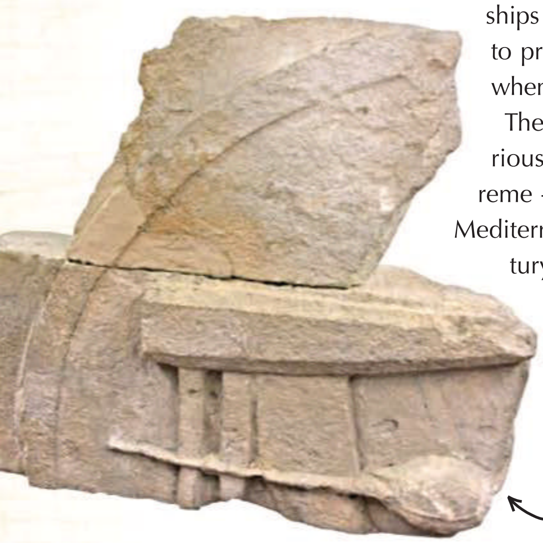
At several moments in the *Iliad* we are told of the Homeric heroes hefting weapons (usually rocks) which "not two men could bear, such as mortals now are" (Diomedes 5.302-304 as just one example). These are clearly super men from ages past. Some exaggeration is at play here, but it does aid Homer's picture that these were not 'normal' warriors.

When Patroclus donned Achilles' armour in Book sixteen of the *Iliad*, he took Achilles' "massive and sturdy" shield (*sakos mega te stibaron te*), his armour and helmet. He also took Achilles' sword and two stout spears (*alkima dory*). This was not Achilles's warrior-slaying spear (*egchos*), however. That was the one thing Patroclus did not take – "the spear heavy and huge and strong (*brithy mega stibaron*); this none other of the Achaeans could wield, but Achilles alone was skilled to wield it" (16.140-143). This spear was made of Pelian ash (from Mount Pelion) given to Achilles' father by the centaur Cheiron. Other similar spears that are exceptionally long or heavy are wielded by Achaean and Trojan warriors – such as Ajax (7.249 – hurling his "long-shadow casting spear" *dolischoskion egchos*), Menelaus (3.355), Aeneas (3.346), Odysseus, Agamemnon and others. Idomeneus, too, was famed for his spear – *douriklutos* (5.45). Often, when these spears are thrown, they easily pierce shield and armour and embed themselves in the soft flesh beneath. Asteropaios could, uniquely, throw two spears at once (21.161-169). In Book 6 (lines 318-320), Hector's spear is described as eleven cubits long. The average length of the dory was six cubits – eleven was close to the doubling of that length attributed to Iphicrates by Cornelius Nepos (*Iphicrates* 11.1.3-4) and one of the lengths given for the Macedonian *sarissa*.

fit defensive artillery. Attackers, meanwhile, put these powerful weapons on the decks of ships and on the platforms of siege towers to provide themselves with close support when they attacked enemy walls.

The second innovation was the first serious attempt to improve upon the trireme – a ship design that had dominated Mediterranean naval warfare for over a century. Dionysius' shipwrights developed quadriremes and quinqueremes, which were larger and heavier than the sleek trireme, providing space on deck for larger detachments of marines or for the installation of siege ladders, towers, or artillery. While the trireme retained its dominance in Greek fleets until the end of the Classical period, enterprising naval powers like Athens had begun to build their own fours and fives by the middle of the fourth century. These big fighting platforms were the future of naval warfare. The Wars of the Successors and the later Punic Wars were fought almost entirely by fleets consisting of these and even larger ships.

The Greek world would never repeat Syracuse's brief surge in military R&D. In Macedon, however, the



Relief of an ancient catapult from the Castello Eurialo, an ancient fortification in Syracuse, ca. fourth century BC.

© Davide Mauro / Wikimedia Commons

Protesilaos, leader of the Phylaceans and first ashore at Troy, on the prow of a ship, ca. 400-350 BC.

© J.Paul Getty Museum

fourth century saw the introduction of the *sarissa*, a two-handed pike for use by both heavy infantry and light cavalry. The origins of the *sarissa* are obscure. It may have been inspired by the oversized mythical weapons found in Homer, or it may have been a further development of the two-handed spears sometimes seen in the hands of Thracians on Greek vases. Both Diodorus and Nepos would eventually claim that the pike was a novelty devised by the Athenian Iphicrates, but their accounts are full of contradictions and implausibilities; it is uncertain whether Iphicrates' reforms to infantry armament ever happened, and if so, whether they had any impact in Greece. Whatever the truth of the matter, Philip of Macedon used the pike to create a new kind of infantry: tightly packed, carefully drilled, impervious to frontal assault despite its relatively light armour and shields. His professional phalangites would finally displace the hoplite as the most reliable winners of heavy infantry engagements. By the end of the third century, all the most powerful Greek states had adopted the *sarissa* for their own armies.

Greek horse chamfron, ca. 350–300 BC, from Puglia, Italy. Cavalry emerged as an important arm for Greek city states.
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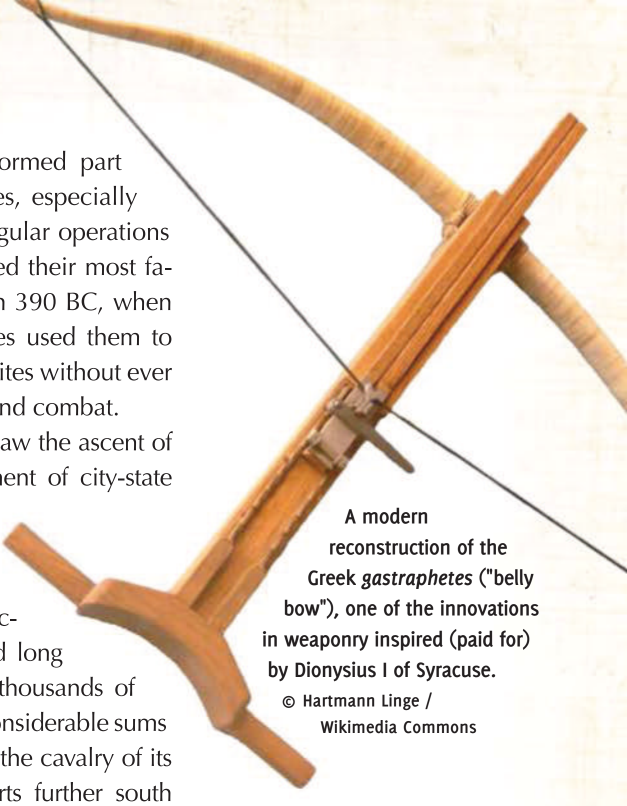
New units

More significant than technological innovation were changes in the way armies were put together. Most of these changes began to happen during the Peloponnesian War, but they were cemented in the fourth century, showing a clear direction of development. Firstly, the large masses of lightly armed levies that accompanied hoplite militias in the fifth century seem to disappear. In their place, hoplites are increasingly supported by smaller units of specialist light infantry. The versatile javelin-armed infantry known as peltasts (after their small shield, the *pelte*), in particular, grew in significance as mobile guardians of passes and forts, marching columns and battle formations. Hired from Thrace and the less urbanized regions of the Greek world, they formed part of most fourth-century armies, especially where difficult terrain or irregular operations were expected. Peltasts scored their most famous victory at Lechaeum in 390 BC, when the aforementioned Iphicrates used them to destroy a unit of Spartan hoplites without ever engaging them in hand-to-hand combat.

The fourth century also saw the ascent of cavalry as a crucial component of city-state armies. The effectiveness of cavalry had been known since the late Archaic period; Greek communities in Sicily and Northern Greece had long been renowned for fielding thousands of horsemen, and Athens paid considerable sums to ensure that it could match the cavalry of its Boeotian neighbours. Yet parts further south were slow to organize mounted forces of their own until the Peloponnesian War had demonstrated the effectiveness of well-handled cavalry in harassing enemies, protecting territory, and winning battles with a decisive charge. In the fourth century, the number and size of cavalry contingents grew dramatically as states



A modern reconstruction of the Greek *gastraphetes* ("belly bow"), one of the innovations in weaponry inspired (paid for) by Dionysius I of Syracuse.
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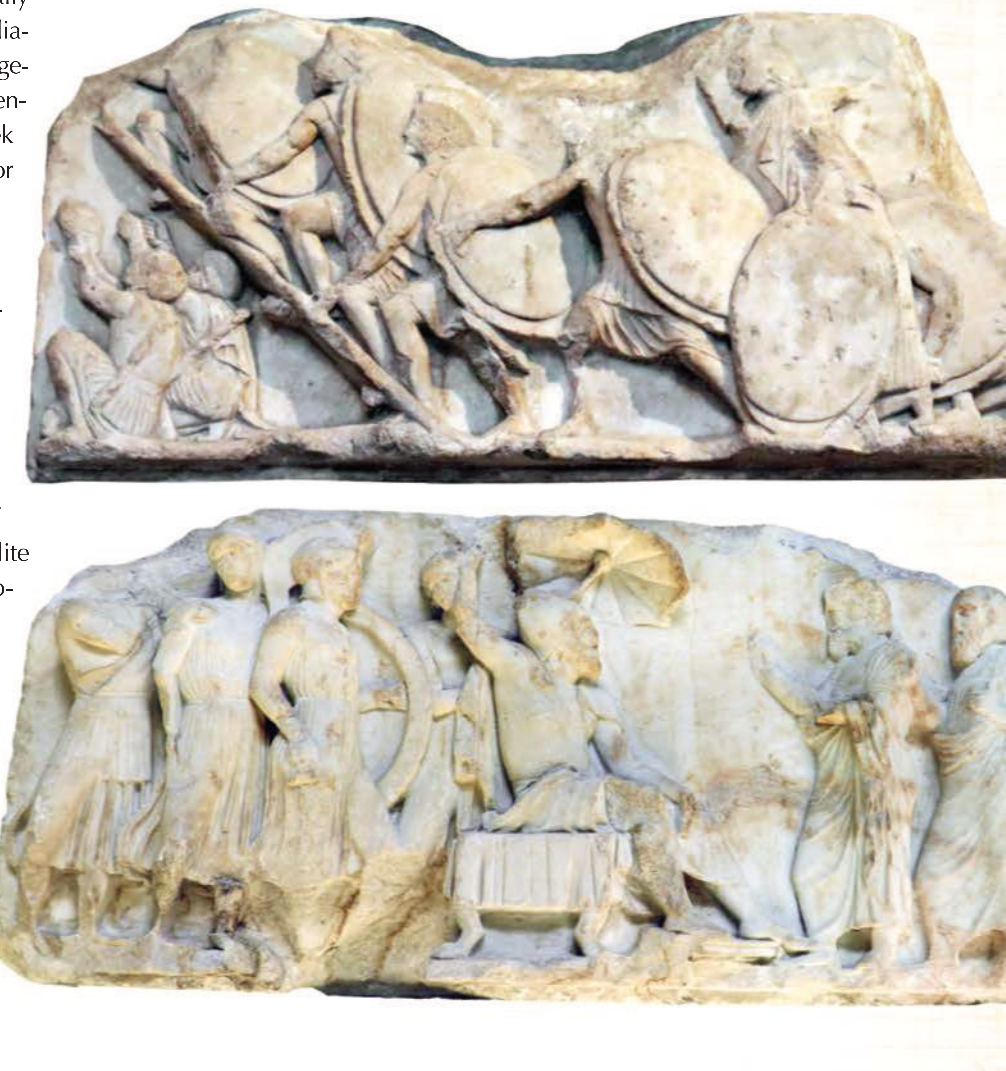
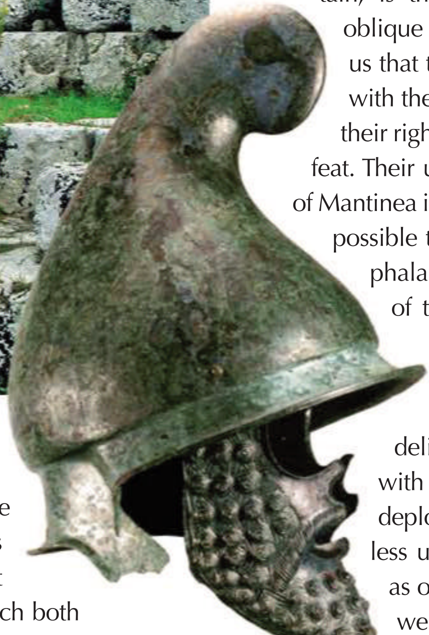


Greek soldiers, supported by archers, scale ladders to climb into a city on the Nereid Monument (top), while below a Lycian ruler is depicted meeting with dignitaries. From Lycia (Turkey), ca. 390 BC.
© Lauren van Zoonen and Carole Raddato / Flickr



(Top) The fortifications of Orchomenos. The city may have had its own elite corps of 300 hoplites, and was a member of the Peloponnesian League.

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(Bottom left) Ruins of the catapult bastion of Euryalus fortress in Syracuse, and the base of the platform for the catapults (*pentapylon*). These date to the late third century BC.

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(Bottom right) Bronze Phrygian helmet from Thrace, fourth century BC, with cheek guards moulded as a beard (Alexander would encourage his soldiers to be clean-shaven).

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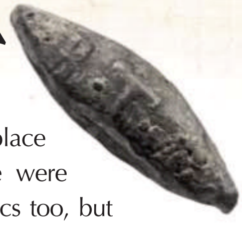

Greek lead sling 'bullet', ca. fifth century BC. Light infantry became much more important in the fourth century.

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paid premiums to muster as many horsemen as they could. By the middle of the century, there was apparently a lively market in mercenary cavalry, which both Athens and Sparta used to supplement their citizen levies and encourage competition for glory. When Alexander the Great crossed over to Asia to challenge the Persian Empire, there were more Greek than Macedonian horsemen in his army (Diodorus, 17.17.4).

New tactics

Advances in finances and technology may have allowed more Greek states to consider protracted campaigning and sieges, but as long as they relied primarily on citizen militias, it was in their interest to end campaigns quickly to minimize economic damage. Pitched battles, therefore, kept their prominent place in Greek military thought. There were some developments in battle tactics too, but these have often been overstated. For example, no great tactical revolution was required to allow the Thebans to defeat the Spartans at Leuctra (371 BC). Instead, this battle witnessed the combination of several tried-and-tested tactics: the Thebans massed their most reliable hoplites in a deep formation on the left of their line to confront the Spartan king and his bodyguards – the proverbial 'head of the snake' – directly. They deployed their strong cavalry in front of their line to lead the charge and throw the enemy into confusion. All of these things had been seen on Greek battlefields before, though they had never been used against the Spartans to such dramatic effect.

One innovation that may have been seen first at Leuctra, though the evidence is uncertain, is the so-called 'in echelon' or oblique phalanx. Some sources tell us that the Thebans did not just lead with their left wing, but actively kept their right wing back to prevent its defeat. Their use of this tactic at the battle of Mantinea in 362 BC is more certain. It is possible that both uses of the oblique phalanx were the organic result of the fact that the Thebans attacked without waiting for their allies to get ready; but if the uneven frontage was deliberate, it presented a break with the established tradition of deploying all hoplites in a more or less unbroken line and advancing as one. The tactic might preserve weaker troops, but it might also open up gaps in the enemy line and expose enemy units to flanking attacks as they tried to adapt to the uneven formation confronting them.

Despite Greek states' efforts to acquire good missile infantry, cavalry, and artillery, it is more difficult to identify any growing sophistication in the combined use of such troop types in the major battles of the fourth century. New tactics were developed, however, to make use of mobile troops in actions short of a set-piece battle. The most significant of these was the cascading charge, in which successive waves of troops would be sent at an enemy

100 Litrai coin of Dionysius I of Syracuse, 405–367 BC. The head of Arethusa is featured on the obverse, while Heracles is shown strangling the Nemean Lion on the reverse side.

© www.cngcoins.com

DID YOU KNOW?

'To cut off the head of the snake' comes from Epaminondas. To inspire his Thebans (before Leuctra) he produced a snake and crushed its head, telling his men that when you crush the head, the body is useless. In similar fashion, they should crush the Spartan phalanx and its allies likewise would be useless (Polyaenus *Strategemata* 2.3.15).

force, starting with the fastest and most flexible (usually cavalry, but peltasts could serve in this role), then other light troops, then the youngest of the hoplites, and finally the sturdy mass of the main hoplite body. The first waves could attack with missiles and veer off if the enemy stood its ground, knowing that the next wave of attackers was following at their heels; but if the dread of a cascading charge broke the enemy's nerve, the quickest troops were first upon them, slaughtering them as they fled.

Still, the tactical ability of any Greek army depended on its level of training and experience, and fourth-century hoplite militias typically had neither. This left their commanders with few options, even if they had some excellent tools in their arsenal. For all its numerous cavalry and the presence of the Sacred Band, the great Theban-Athenian army that faced Philip of Macedon at Chaeronea seems to have made no tactical plan beyond spreading to the full width of the plain to anchor the flanks and simply advancing on the enemy. The allies, essentially, chose to rely on the valour and enthusiasm of the hoplites alone. On that day, Demosthenes was right: Philip had changed the art of war, and the Greek world would pay the price for its inability to keep up.

A new age?

Many features of Greek warfare changed in the course of the fourth century as greater financial resources allowed the larger states to establish professional forces and develop new weapons. By the middle of the century, permanent garrisons and foreign mercenaries had become a normal sight in many states, just as peltasts and cavalry had become an indispensable part of any army; cities invested heavily in new defensive systems, arsenals, dockyards and fleets. But their main military resource remained the citizen body in arms: large forces of amateurs, called up at need, who made up for their lack of professional skills with raw courage and commitment to the cause. Greek states were too small to afford a more radical change in their methods. The autocrats of the age did not face the same limitations. Tyrants like Dionysius of Syracuse and Jason of Pherae pioneered the use of large mercenary armies, with huge cavalry components and sophisticated siege trains. Philip and Alexander took these ideas and forged one of the most professional and effective armies the world had ever seen. Their forces were the final product of the military innovations of the fourth century. AW

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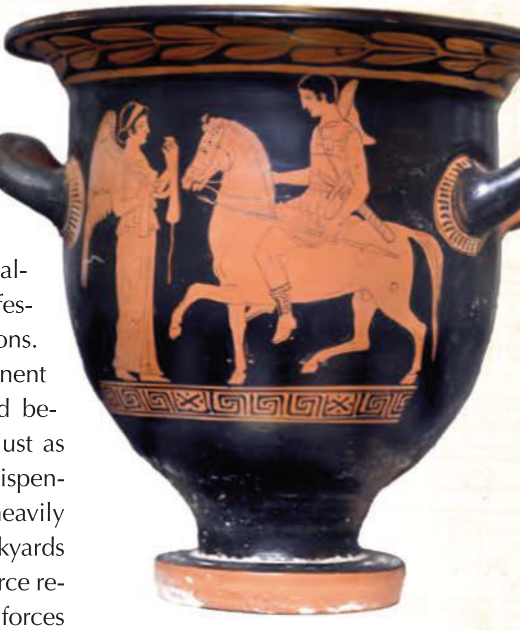
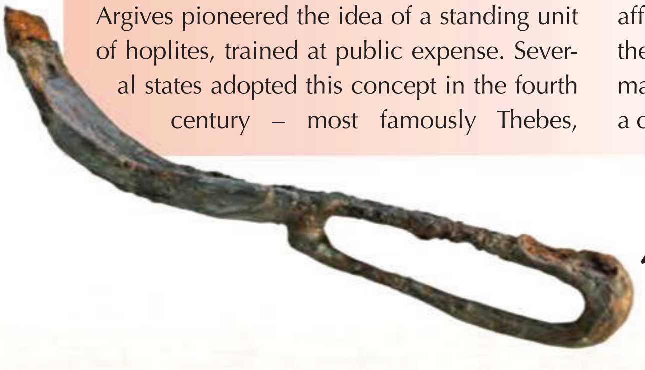


Fourth-century BC Apulian bell crater showing Nike offering a blindfold to a cavalryman wearing a yoke-and-tube cuirass and armed with a sword.
© Fabrizio Garrisi / Wikimedia Commons

Picked hoplites

While cavalry and light troops, relatively overlooked elements of earlier Greek armies, were the main subject of innovation in the fourth century, hoplites, the mainstay of Greek armies, also saw some changes. The hoplite body was augmented by the establishment of units of *epilektoi* ('picked troops'). Picked hoplites had been fielded at least since the Persian Wars, but they had usually been formed and disbanded as the situation demanded. During the Peloponnesian War, the Argives pioneered the idea of a standing unit of hoplites, trained at public expense. Several states adopted this concept in the fourth century – most famously Thebes, whose Sacred Band formed the core of its armies until the unit's annihilation at the hands of the Macedonians at Chaeronea (338 BC). Picked units provided states with a readily available elite force composed of troops chosen for their physical fitness and political loyalty. Unlike the cumbersome hoplite levy, picked troops tended to be disciplined, mobile, tactically flexible, and resilient. Even larger states could not typically afford to pay for more than a few hundred of these men, but they demonstrated what permanently established forces might achieve if a community had the means to support them.

Sculptural fragment with a Theban shield showing the club of Heracles (probably used by the Theban Sacred Band, if not more widely) and a cloak.
© Gary Todd / Flickr



Buried in the grave of the Sacred Band at Chaeronea were several *strigils* – evidence that they prided themselves on their appearance. See also AW XIII.6.
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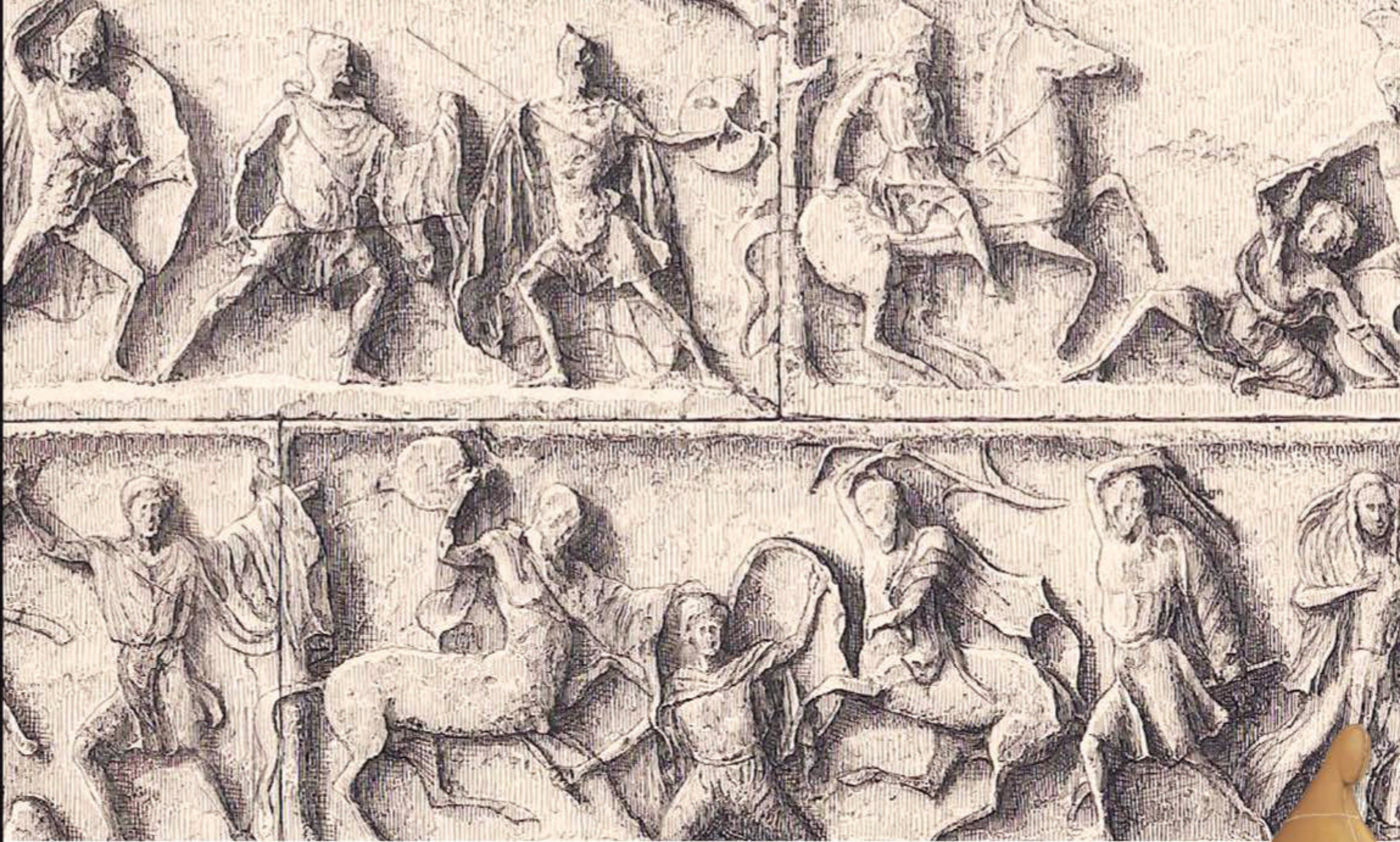


Illustration of a combat between lightly-armed warriors and cavalry from the Heroon of Trysa, dated to ca. 380 BC, southwestern Turkey.

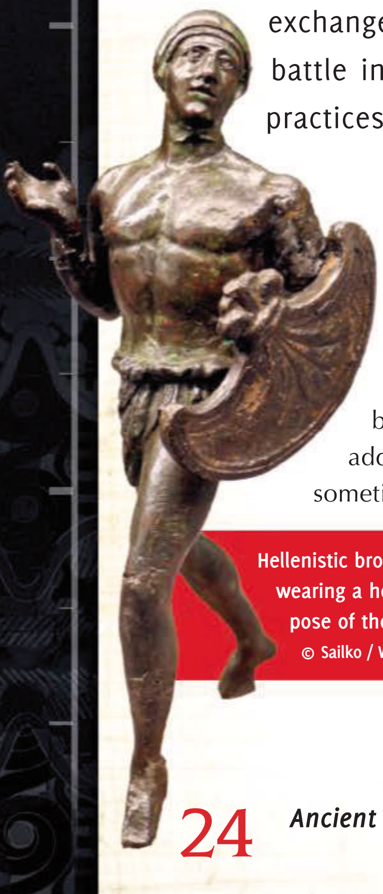
PELTASTS IN THE FOURTH CENTURY BC

KEEPING YOUR DISTANCE

By Aaron Beek

Before 400 BC, as a rule, Greek armies employed mainly *foreign* peltasts, typically from Thracian communities. Some efforts were made, late in the Peloponnesian War, to equip Athenian oarsmen as peltasts (see *AW* 17.5). Even at the battle of Cunaxa (401 BC), the practice was already varied. Diodorus describes a brief exchange of javelins that more resembles the Roman practice than any battle in Thucydides (14.23.2), but Xenophon instead describes different practices of the Persians (who threw shorter javelins from horseback).

By the early fourth century, notably in the Corinthian War (395–387/6 BC), the city-states of Greece had begun assembling their own citizen corps of peltasts, many of which were equipped on the Thracian model, but were not Thracian themselves. Xenophon adds to the historians' confusion in the *Anabasis*, sometimes referring to Thracians as an ethnic term, but sometimes also using it as shorthand for 'skirmishers', despite the army of Cyrus having a force of Thracian mercenary cavalry as well. Elsewhere, Xenophon refers to "the soldiers" as a distinct force separate from "the hoplites". This frustrating lack of clarity quite likely represents also a lack of clarity in the fourth century, as terminology scrambled to keep up with practice.



Hellenistic bronze statuette now in Florence of a dancer or gymnast wearing a helmet and carrying a rather stylized *pelta* shield. The pose of the hand suggests it used to hold a javelin.

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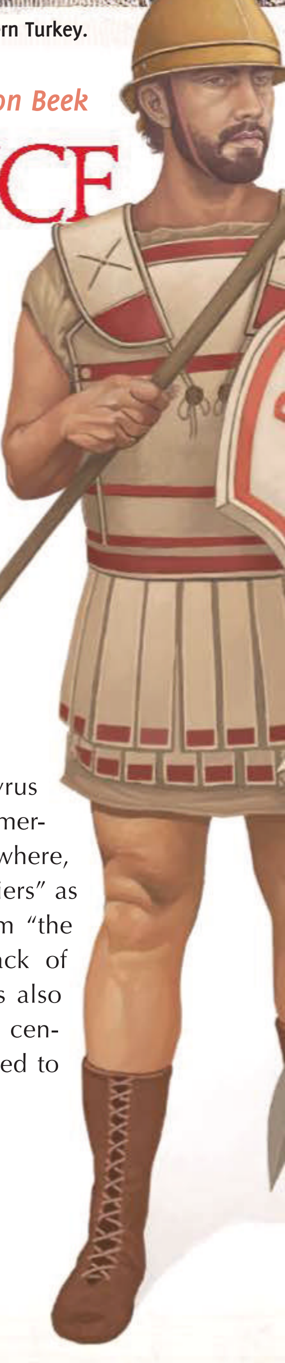

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Silver drachm from Pelinna, 425–350 BC, showing a Thessalian cavalryman and a peltast with two spears.
© cngcoins.com

Peltasts were gaining in popularity however. Equipped with the iconic shield and apparently with some form of light armor, they theoretically could defeat other light-armed skirmishers (often called *psiloi* or *gymnetes*, meaning 'bare, stripped, naked') in hand-to-hand combat and they could outrun the traditional hoplite after hurling their missiles. Additionally, since their equipment was far cheaper than the hoplite's full panoply, more men could be enlisted as peltasts. This class distinction, along with the possibility that peltasts could loot better equipment for themselves, became additional factors towards the disreputable reputation peltasts attained. Their effectiveness was perhaps first acknowledged by Xenophon in his *Anabasis*, although they appear in Thucydides in descriptions of events during the Peloponnesian War. Xenophon does note the use of both Greek and Paphlagonian peltasts in the 390s campaign of Agesilaus in Asia, though their utility in these conflicts was debatable; caught in the open, the Greek javelineers were chased off by Persian cavalry. Agesilaus himself, however, reckoned that the peltasts' failings were due rather to the Spartan deficiency in cavalry, which he then addressed himself by recruiting from the Spartans' allies. Plato also noted that peltasts were involved in Sicily before Iphicrates. Due to Carthaginian pressure and conflicts between the city-states on Sicily, warfare on the island was often at the forefront of military development. For example, both the quadrireme and the catapult came into use in fourth-century Sicily. The rule of Dionysius I of Syracuse is perhaps to be credited, as he encouraged mercenary troops from all lands to come, and cheerfully adopted new techniques and equipment.

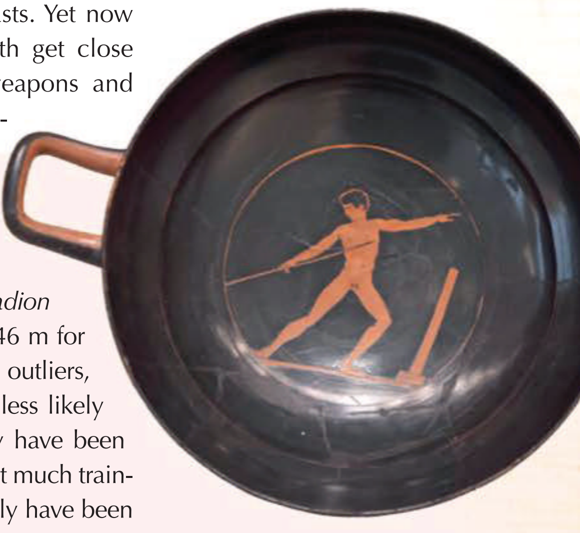
It was the Athenian Iphicrates, however, who is generally considered to have heralded a shift in fourth-century warfare. There is some debate over the precise nature of the Iphicratean innovations, which apparently included sustained training of the peltasts to rapidly advance and retreat. This was quite important, as we know of several early battles where the skirmishers would not come close enough to the hoplites to use their missile weapons before retreating, or conversely, they approached close enough for the hoplites to break ranks and catch the peltasts. This last scenario even includes an example involving Iphicrates himself in 395/4 BC, when his peltasts failed to get close enough to the Spartans in Arcadia (Xenophon, *Hellenica* 4.4). The results of Iphicrates' reforms were hard to argue with – only a few years later, the Iphicratean peltasts defeated the Spartan phalanx at Lechaeum, in 390 BC, in a running, back-and forth battle that resulted in nearly 50 per cent casualties for the Spartan *mora*. This battle did involve the Spartans doing exactly what earlier peltasts had feared, with the youngest Spartans breaking rank to sprint towards the peltasts. Yet now the peltasts had learned to both get close enough to use their missile weapons and then to retreat before the pursu-

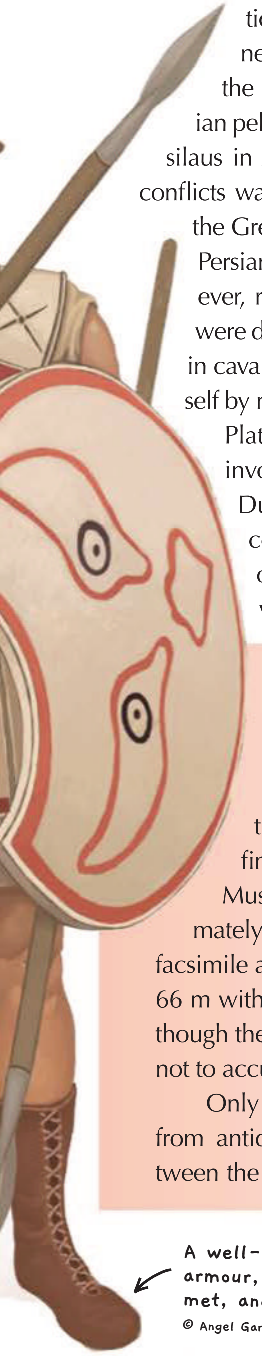
Greek funerary stele of the cavalryman Méknes, now in the Kerameikos Archaeological Museum, Athens. Fast-moving horsemen were an effective threat to peltasts.
© Giovanni Dall'Orto / Wikimedia Commons

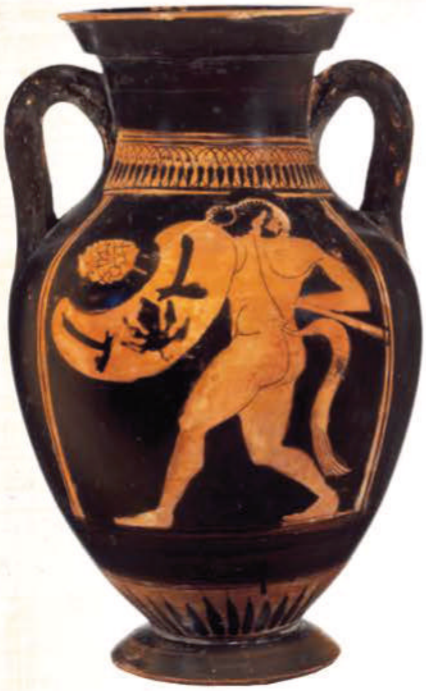
How far, exactly, is a 'javelin cast'?

The modern world record of a javelin throw stands at 98.48 m, using javelins that are heavier than reconstructions based on finds in the Nemea Archaeological Museum, which weigh only approximately 450 g in total. Modern throws of facsimile ancient javelins have been thrown 66 m with an *ankyle* and 35 m without, although these casts were thrown for distance not to accurately hit a target.

Only Statius gives us a cast distance from antiquity, stating that the length between the turning posts of a chariot *stadion* could be matched by four javelin casts or three arrow shots (*Thebaid* 6.353–4). An average *stadion* was 185 m (606 ft) which gives 46 m for a javelin cast, though there are outliers, of course, giving far greater, but less likely distances. A throw of 30 m may have been achievable with an *ankyle* without much training – such devices would probably have been used by Iphicrates' peltasts. In which case, an average distance of an ancient javelin-cast was perhaps 40–50 m with an *ankyle*, but enough for Iphicrates' peltasts to evade the Spartan pursuit at Lechaeum.


Attic red-figure kylix, ca. 440-430 BC, depicting an athlete about to cast a javelin. Though very small, he might be using an *ankyle*.
© Carole Raddato / Flickr


A well-off peltast with boots, linen armour, pelta shield, Phrygian helmet, and two throwing javelins.
© Angel Garcia Pinto



Attic red-figure amphora with a satyr armed with a *thyrsos* (a giant fennel stalk topped with a pine cone, associated with Dionysys) and pelta shield, ca. 500-490 BC.

© Metropolitan Museum of Art

ing hoplites could reach them – tactics they executed brilliantly at Lechaeum. But how much distance did they need to keep to be able to strike hard, but still be safe from hoplite repercussions?

And yet exactly what Iphicrates' reforms entailed is hard to decide. Diodorus (15.44.3-4) says: "After a trial of the new shield its easy manipulation secured its adoption, and the infantry who had formerly been called 'hoplites' because of their heavy shield, then had their name changed to 'peltasts' from the light pelta they carried." This suggests the author conflated the earlier light infantry with the peltasts in the Hellenistic era, which were quite something else. Diodorus goes on to discuss the sword and spear (see Dahm, p.40) and comments on the boots introduced by Iphicrates: "He made soldiers' boots that were easy to untie and light and they continue to this day to be called 'iphicratids' after him. He also introduced many other useful improvements into warfare, but it would be tedious to write about them." Since peltasts had to be more nimble on the battlefield, perhaps these boots also had some form of cleats or hobnails for traction. The historian cannot but rue Diodorus' lack of interest, but some aristocrats adopted these boots as an affectation (Theophrastus 2).

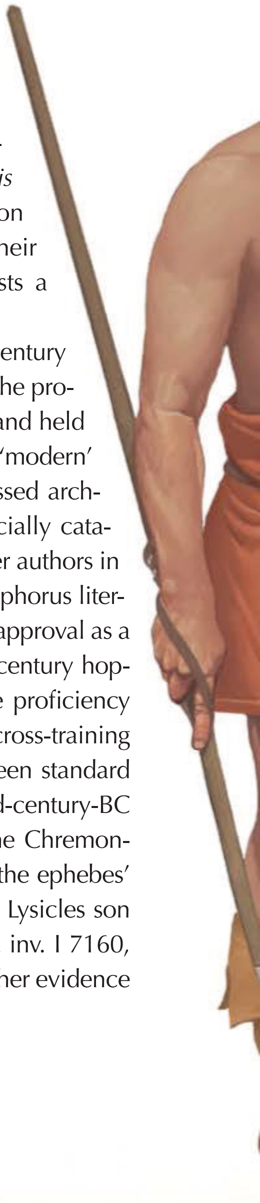
DID YOU KNOW?

We have several sources for the strength of the Spartan *mora*, ranging from Plutarch's 500 (*Pelopidas* 17.2) via Xenophon's (*Hellenica* 2.4.31 and 6.4.12) indication of sixteen *enomotia* of 36 men for a total of 576 up to near 1300 in modern estimates. Xenophon's numbers are consistent, however, and he was a contemporary who worked with the Spartan army.

Throwing the javelin

We should remember that many Greek sporting events were military exercises first, athletic competitions second. As such, Olympic iconography is valuable as an indication of how the javelin was thrown. Olympic vase paintings display more clearly the *ankyle* (*amentum* in Latin), the thong used by athletes and peltasts in the field. The *ankyle*, attached midway along the shaft, provided both a secure handhold and additional leverage suitable to send the javelin at least an additional 10 m. Developments in javelin-throwing techniques seem to have passed back and forth between the athletic and the military sphere. Given that Thracians were excluded from these games, one imagines it was much more a technique travelling from military training to athletics than the reverse, although we also have later evidence of smaller athletic competitions where mercenaries *hired by* Athens were allowed to *compete as* Athenians. Xenophon's account in the *Anabasis* describes peltasts who were low on ammunition "fitting arrows to their *ankyles*", which certainly suggests a rather loose attachment.

Evidence from the fourth-century BC historian Ephorus suggest that he promoted an ideal of single combat and held a dim view of developments in 'modern' fourth-century warfare. He dismissed archers and javelin-hurlers, and especially catapults, as unfair and cowardly. Later authors in antiquity were too prone to take Ephorus literally, however, interpreting this disapproval as a customary ban. Fifth- and fourth-century hoplites alike are seen to have some proficiency with the javelin, and significant cross-training with the javelin seems to have been standard for young Athenians. An early third-century-BC inscription from Athens during the Chremonidean War (267–261 BC) praises the ephebes' javelin-instructor (*akontistes*), one Lysicles son of Antipatros of Sypalettos (Agora inv. I 7160, line 16, also *IG* II2 700, 766). Further evidence



The stadium of Oympia in the Peloponnese – its length is 212.54m, the equivalent of four javelin casts.

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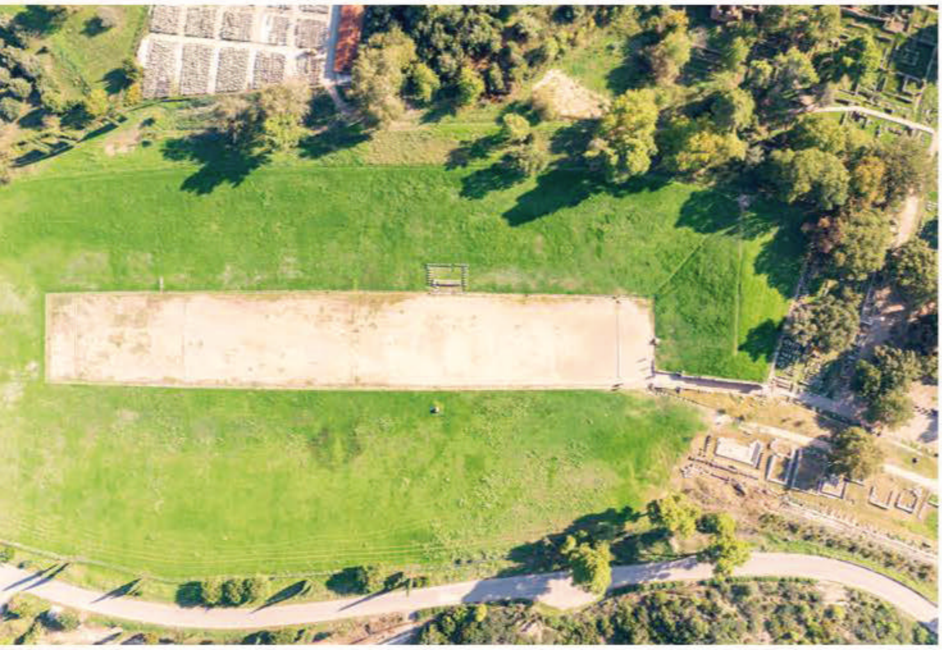

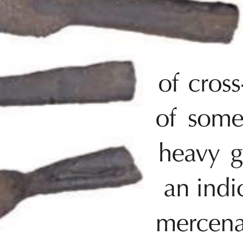
Javelin heads found in the fourth-century BC Kyrenia shipwreck, discovered off Cyprus in 1967.
© Livius.org

of cross-training seems clear by the ability of some mercenary hoplites to shed their heavy gear and take up skirmishing roles; an indication, perhaps, that one goal of the mercenary peltast of the fourth century was to upgrade his gear to the hoplite panoply.

The economic peltast

The cheaper linothorax and the peltast's affordable gear were both innovations in fourth-century warfare that allowed a general to make use of a larger body of available recruits. The full panoply of a heavy infantryman was clearly an economic barrier for the individual soldier of even moderate means. A mercenary peltast might earn (or loot) enough to become a hoplite, and a mercenary hoplite might acquire land and citizenship. Numerous fourth-century commanders gave away free weapons as a means of recruiting troops. On the other hand, the innovations of fourth century peltast, cavalry, phalangite, and mercenary warfare also accompanied the acceptance of a much higher rate of casualties, perhaps three times as high as in previous periods of warfare. Cost-conscious generals were not opposed to placing mercenary peltasts in dangerous situations or releasing them from duty on short notice. This further encouraged the peltasts' reputation for excessive looting.

The peltasts' reputation for looting was sometimes also an asset. On multiple occasions, the Athenian general Chabrias deployed units of peltasts separate from the main force, to draw the enemy into attacking them and thus falling out of position. The greater maneuverability of and the threat posed by these light forces was a clear advantage.

The rapid growth and utility of peltast forces also made Greek cavalry units more influential, and here our evidence is more detailed, with city-states around the Aegean establishing training forces for young noblemen, including, by 370 BC, in Athens and the Peloponnese, where it had been neglected for decades. This new attention to cavalry training completed the third leg of the 'combined arms' tripod. Although these cavalry squadrons certainly developed tactics for fighting formed infantry, their principal objective was rather to protect the heavy infantry from peltasts and other skirmishers, as we see in 356 BC, where the Athenian commander Chares used them to screen his army from peltasts in Thrace. By this point, the peltasts often significantly outnumbered the hoplites on the field. AW

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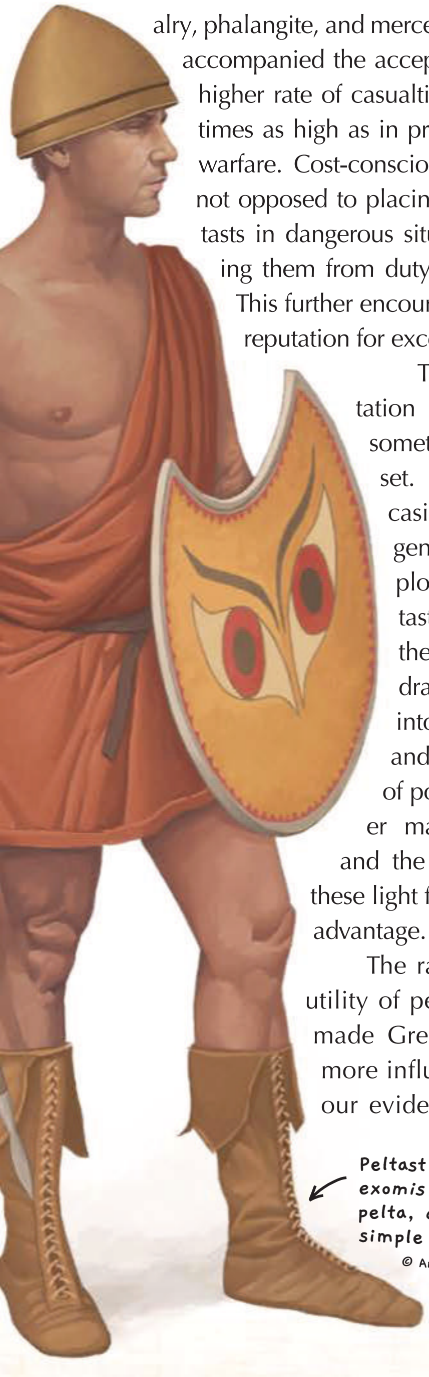
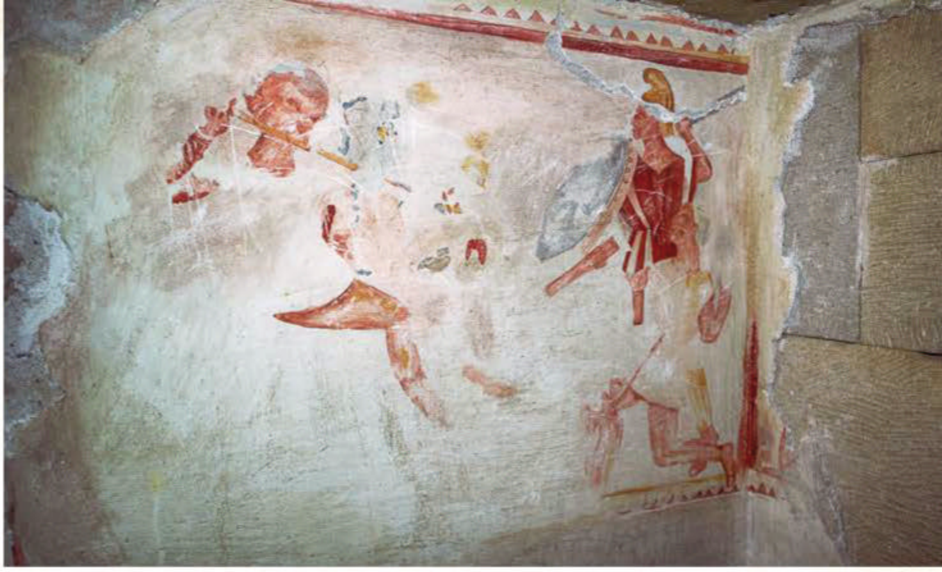
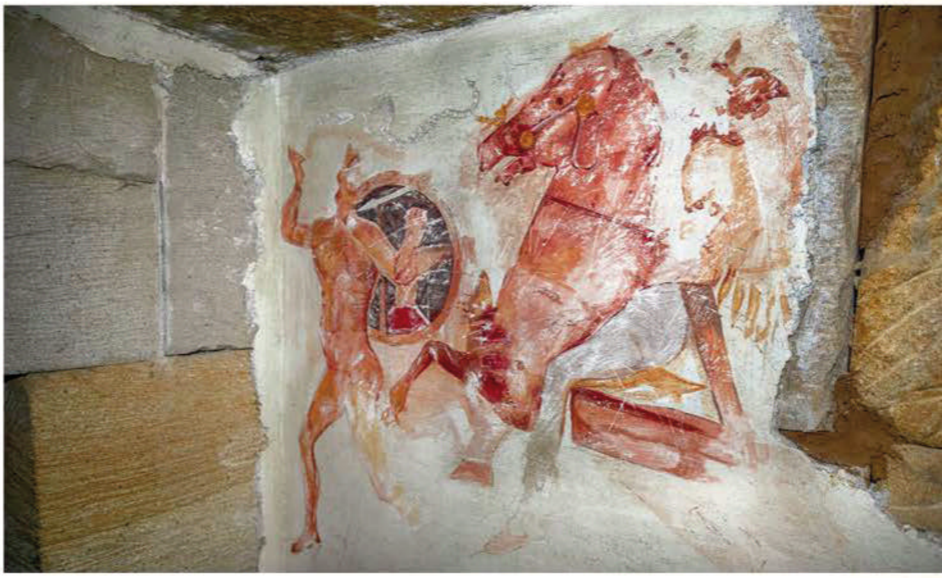
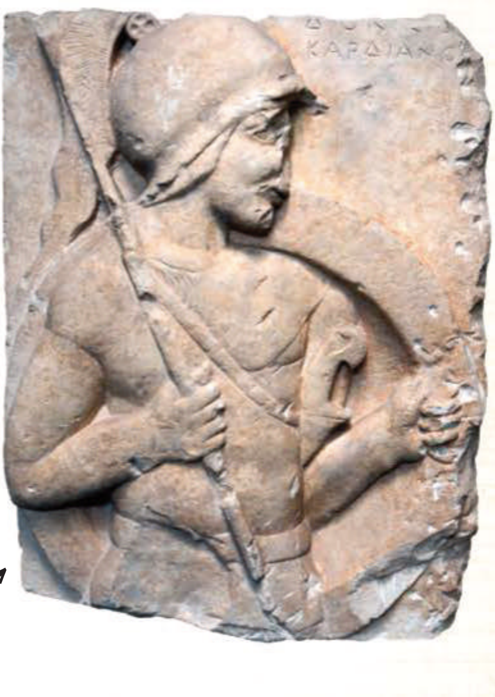

Peltast dressed in only an exomis tunic. He carries a pelta, a single javelin and a simple pilos helmet.
© Angel Garcia



Frescoes from the interior of the fourth-century BC Aleksandrovo Tomb, Bulgaria, showing peltasts in combat with cavalry.
© Todor Stoyanov-Raveo / Shutterstock



Tombstone of a Thracian warrior named Dionysius of Cardia, ca. 400 BC, with sword, *aspis*, helmet, and possibly a throwing spear.
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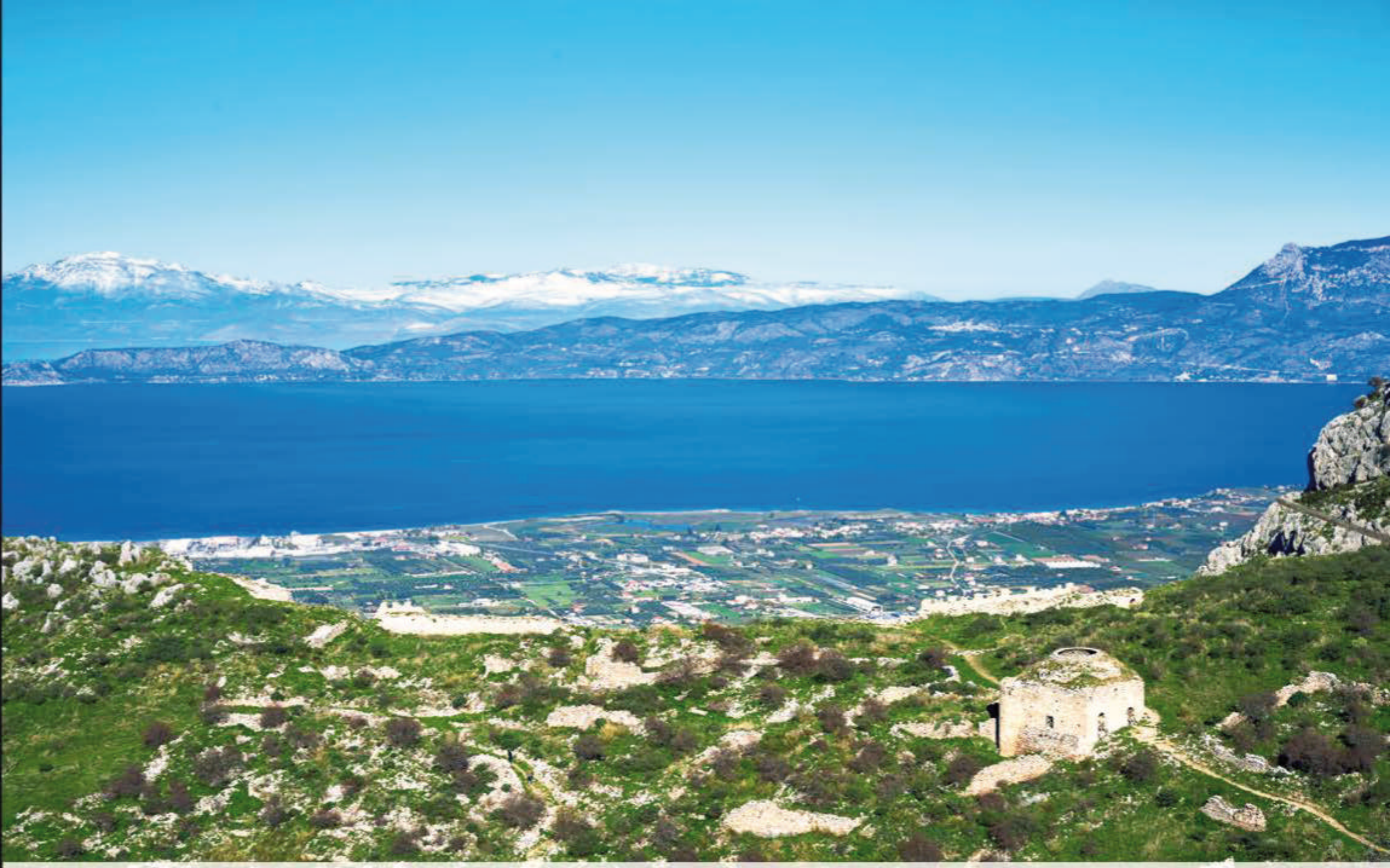

View from the Acrocorinth, the fortified mount overlooking Corinth, towards the Gulf of Corinth. Lechaeum was near the small lakes in the centre.

THE BATTLE OF LECHAEUM, 391 BC

THE BOGEYMEN WITH JAVELINS

By Bogdan Burliga

It was not the largest battle during the so-called Corinthian War - the conflict between Sparta and the coalition of Thebes, Athens, Corinth and Argos that raged in Greece from 395 after the end of the long-running Peloponnesian War (431 - 404 BC). Although the battle did not have any long-lasting political consequences, it certainly made headlines and caused a great sensation among the Greeks of the time.

Here is half of a Spartan regiment (Greek: *mora*) of heavy-armed infantry, the always awe-inspiring hoplites, being massacred by mercenary light-armed men led by the Athenian Iphicrates. Apart from short notices in Diodorus (14.91.2) and Nepos (*Iphicrates* 2.1), only Xenophon provides a comprehensive story in his invaluable *History of Greece* (*Hellenica*, 4.5.7-18; further *Hell.*). Although he did not participate in the battle itself, he was not far from the site of the Spartans' defeat, at the camp of King Agesilaus in a settlement called Peiraeum (modern Perachora). Xenophon heard the account of the defeat from an eyewitness who came from the battlefield and recounted the course of this unusual massacre. Xenophon describes it with the highly emotional term *pathos* – 'misfortune', or 'suffering', probably also because the loss of so many hoplites was a painful blow to Sparta.

A bust believed to be Xenophon, who lived between ca. 430 – 354 BC. He is one of the most reliable sources for fourth-century Greek history and a vital source of Spartan history.
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Historical and political context

The Corinthian War (395 - 387/6 BC), or rather a series of actions on a smaller scale, first in Boeotia, then in northern Peloponnese, was the result of the rather convoluted political situation in Greece following the end of the Peloponnesian War. A coalition of Thebes, Corinth, Argos, and Athens aspired to overthrow Spartan hegemony after its victory in the Peloponnesian War. They feared the expansionist policies of Sparta, which now

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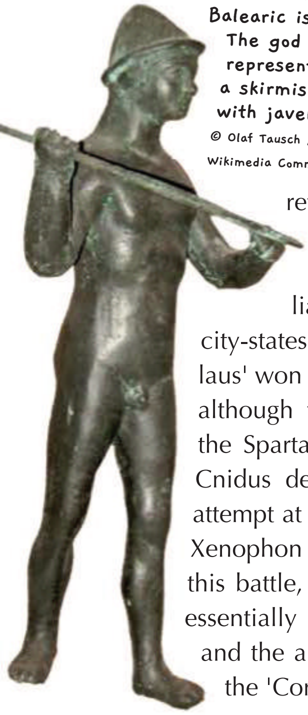
controlled many of the smaller cities within Greece by installing her officials (harmosts - "those who establish") and her military garrisons, and then began to send military expeditions to Asia Minor, bringing aid and 'liberation' to the Greek cities there in their resistance against the Persian satraps. The last such expedition, that of Agesilaus, was recalled in the face of the hostile covenant formed against Sparta. The king returned to Greece via Thrace and Thessaly in 394 and then turned against the alliance of the aforementioned city-states. While in Boeotia, Agesilaus' won the battle of Coroneia (394), although the simultaneous defeat of the Spartan fleet in a naval battle at Cnidus definitely ended the Spartan attempt at controlling the Aegean Sea. Xenophon writes (*Hell.* 4.2.1) that after this battle, the theater of war became essentially northeastern Peloponnese and the area around Corinth - hence the 'Corinthian War'.


A bronze figurine of Mars from the Balearic islands. The god is represented as a skirmisher with javelin.
© Olaf Tausch / Wikimedia Commons

A political crisis in Corinth resulted in the slaughter of the faction favouring Sparta and the alliance of Corinth with Argos. In 392, Agesilaus returned from Sparta and resumed operations. The base of the Spartans was now in Sicyon. With the help of surviving Corinthian allies, the Spartans captured the Long Walls connecting Corinth to the harbor city on the Bay of Corinth, Lechaeum (Xenophon, *Ages.* 2.17; *Hell.* 4.1.1-13; Diodorus, 14.86.1-3), where a Spartan military garrison was installed (*Hell.* 4.4.17).

Iphicrates' mercenaries appear in Xenophon's narrative during the operations near Phlius in Arcadia in the year 391. They had made a great impression on the local warriors, but, continues Xenophon (*Hell.* 4.4.16-17), the peltasts of Iphicrates felt an overwhelming fear of the Spartan hoplites and were afraid to approach them closer than javelin-throwing distance, especially since on another occasion the younger Spartans had been able to catch up with the light-armed javelinmen and inflict losses. Because of that, Xenophon adds prophetically, the hoplites despised the light-armed peltasts as a real military force.

The defeat of Spartan hoplites by lightly-armed infantry was not an entirely new phenomenon. It had happened before at Sphacteria in 425 BC. This shield was captured from the Spartans that same year, at Pylos.
© Gary Todd / Flickr

Course of the battle

Having captured Leachaeum, Agesilaus appeared at the Isthmian games, causing a panic. He proceeded to raid the area and captured the fortress of Oenoe. And then all his success was undone. A Spartan horseman found him and reported of the defeat of the *mora* stationed at Lechaeum. Upon hearing of the disaster, Agesilaus went to the site of the battle and found that the bodies of the fallen had already been recovered.

Xenophon's account about the course of the battle is relative-

A phalanx formation can be seen on the heroön of King Pericles of Lycia. The vulnerability of the phalanx on its unshielded side is immediately obvious.
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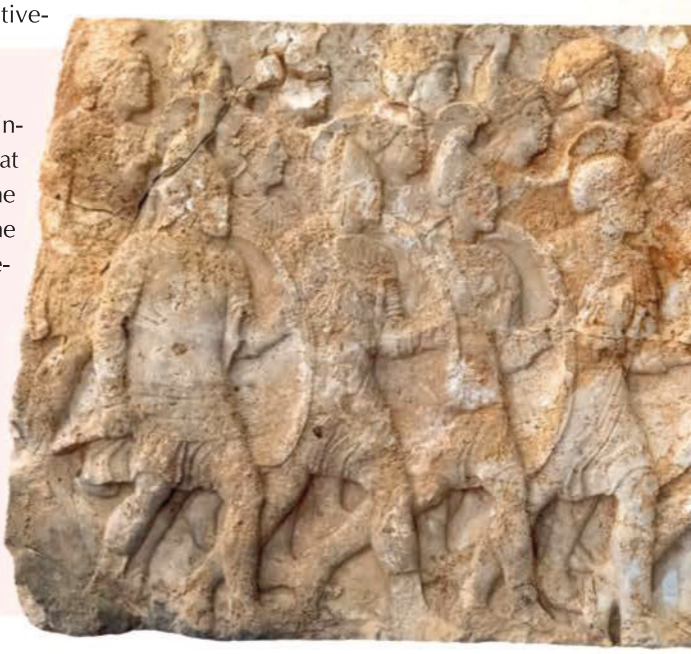
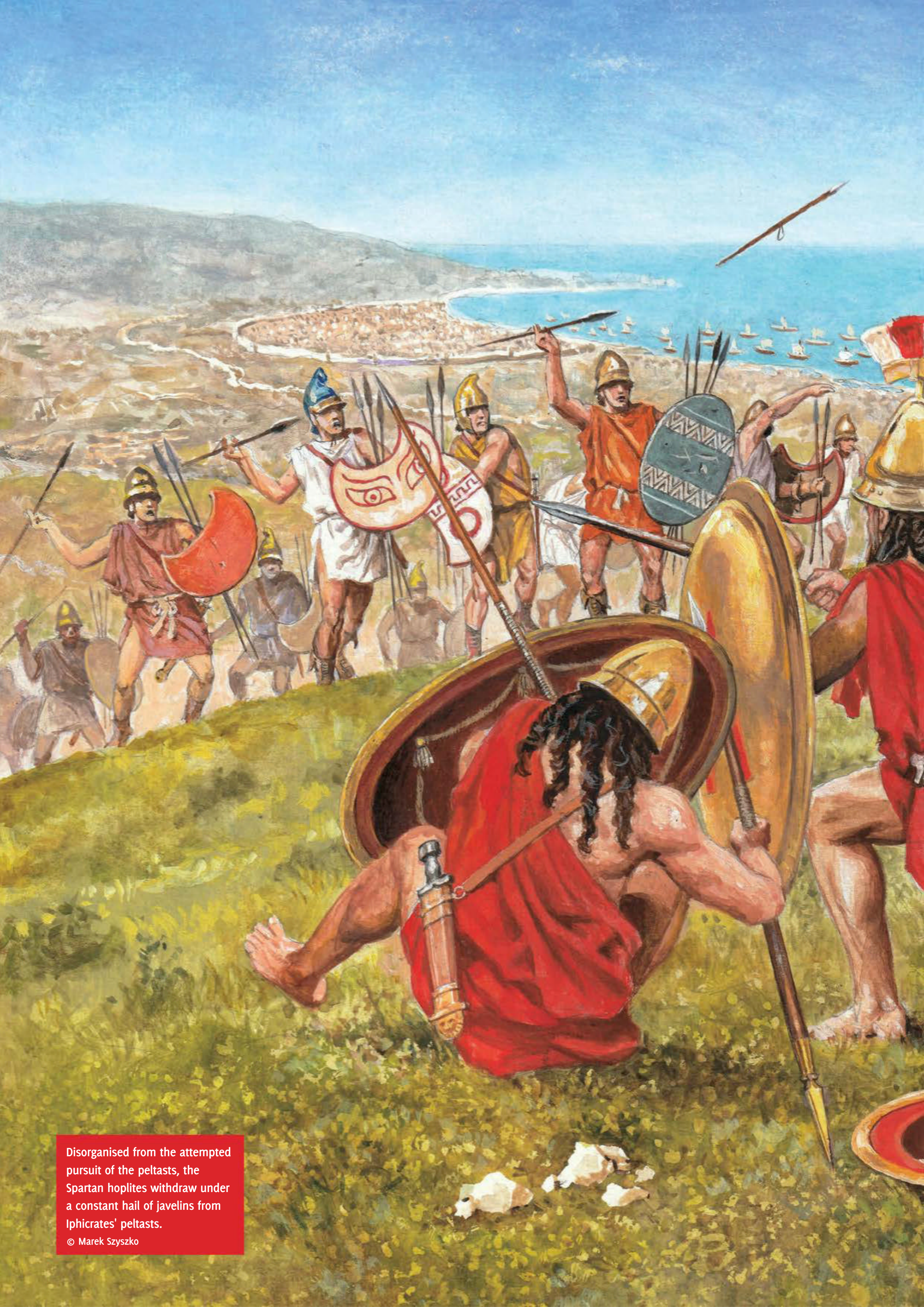


Hoplite hopes come crashing down

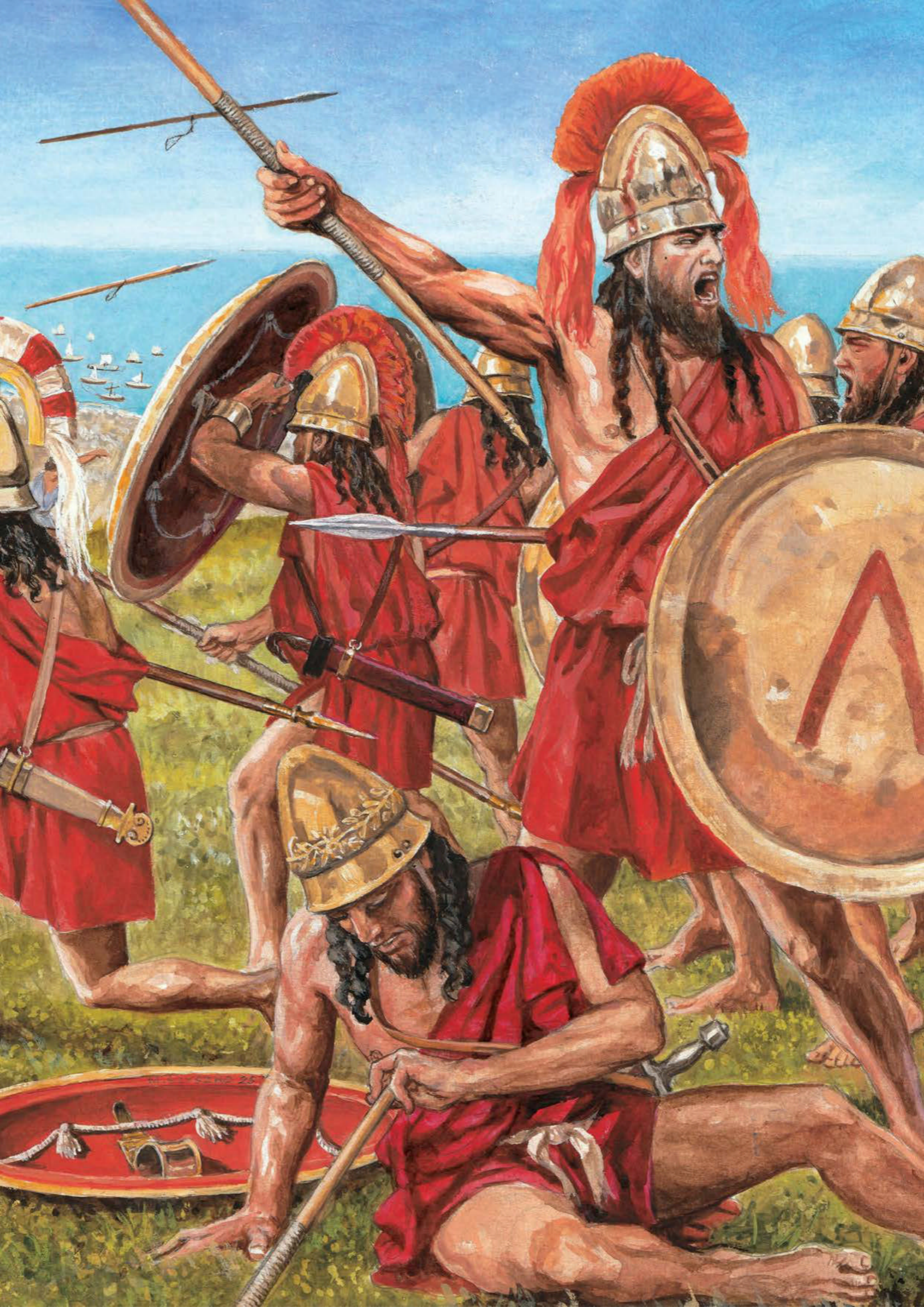
Xenophon interrupted his narrative because the defeat of heavily-armed infantry by much worse-armed opponents was so unusual. He writes, "a defeat was most unusual for the Spartans, there was much grieving throughout the army". This emotional reaction to the defeat of the Spartan hoplites shows the vitality of a certain social and political ideal, an ideology, propagated especially among the Sparta citizens, that they comprised a community (to cite Plutarch *Agesilaus* 22.2) of "brave men", "hoplites" and "Lacedemonians". It shows the vitality of hoplite ideology, which, even if it did not correspond to more complicated military realities, was sustained. The persistence of the belief in the superiority of the hoplites over other, lighter-armed formations was so firmly established in the consciousness of the people of that time that the event at Lechaeum reverberated throughout Greece, even it was not without precedent. That precedent, of course, was the defeat of Spartan hoplites by hired peltasts at Sphacteria in the year 425 BC.

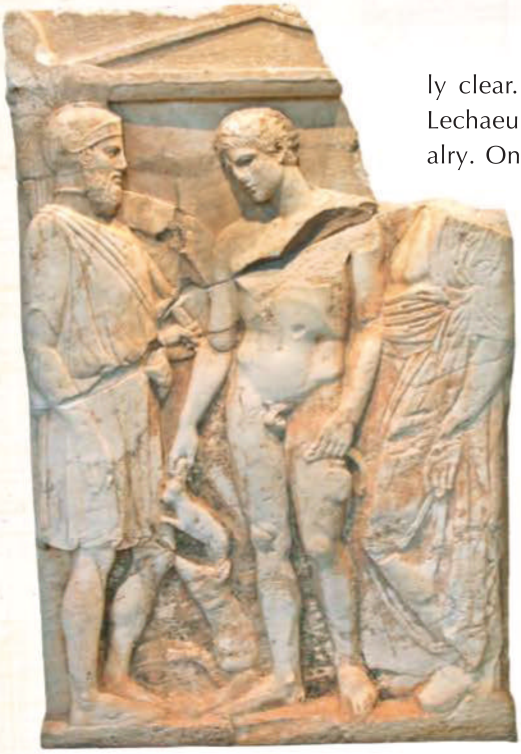
Javelin points found at the sanctuary of Apollo Epikourios at Bassae, Greece.
© Dan Diffendale / Flickr



Disorganised from the attempted pursuit of the peltasts, the Spartan hoplites withdraw under a constant hail of javelins from Iphicrates' peltasts.

© Marek Szyszko





Late-fifth century BC tombstone of Kleoboulos, depicted as a wrestler with *strygil* and oil flask. To his left stands his father, Menon, who seems to be equipped as a hoplite, but may have been associated with the Athenian fleet.
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ly clear. A Spartan *mora* was stationed at Lechaeum, consisting of infantry and cavalry. On the orders of its commander, one Bias (Plutarch, *Mor*. 219c), they set out to escort their allies from the city of Amyclae, who were returning to their home on the river of Eurotas, for a religious ceremony. The Amyclaeans and their escort marched west along the coast. When they reached their base near Sicyon, the hoplites, numbering about 600 men, turned back to Lechaeum, while the cavalry continued to accompany the Amyclaeans. The commander of the Spartan hoplites was aware of the presence in Corinth of both the Athenian hoplites under the command of Callias and the peltasts of Iphicrates, yet he ignored their presence. The Spartans "feared the peltasts just as children fear hobgoblins" (Xenophon, *Hell*. 4.4.17).

The crux of the tactics employed by Iphicrates, who was assisted by Athenian hoplites observing the skirmish, was to attack a lone regiment of hoplites marching in column. They threw their javelins at the exposed body parts of those who bore shields, and then retreated whenever the heavy-armed hoplites attacked, wanting to drive their tormentors away. The battle took on an 'attack and retreat' dynamic: when the hoplites began to return in disorder from their unsuccessful pursuit of the faster and more agile light-armed troops of Iphicrates, the latter would turn back and run in again, throwing their javelins at the retreating Spartans – from the front and from the side. In this way, heavy losses were inflicted on the Lacedaemonian infantrymen. Many of the wounded were carried to the harbour of Lechaeum, while the bravest, as Xenophon notes, perished. When the Spartan cavalry returned from escorting the Amyclaeans, they joined the infantry formation. They formed a joint battle line with the hoplites, already randomly charging the enemy peltasts. This was the wrong decision and a poor use of cavalry, as Xenophon notes.

The utter defeat of the Spartans was finally sealed when the Athenian hoplites of Callias joined the battle. The appearance of heavy infantry caused panic in the decimated Lacedaemonian *mora*. Xenophon writes that "about 250" hoplites fell in the battle, although modern scholars believe that this figure is an underestimate in view of the fact that the regiment numbered some 600 men. On this occasion, Xenophon cites the prevailing mood among the Spartan families of the fallen: they were proud to hear that their falled sons and brothers died not having flinched from their positions – a sentiment that was in line with the accepted Spartan value system, and was appreciated among the other Greeks, too. Xenophon, however, assessing the whole matter more prosaically from a soldierly and tactical perspective saw the battle as a serious blow dealt to Lacedaemonian morale and manpower.

Peltasts in action

In modern times, Lechaeum has often been analysed by military historians precisely because of the fact that a heavy-armed unit was crushed by a light-armed one. This was, indeed, a rarity, although it is not the only example of the defeat of hoplites by light-armed troops. Unlike the battle on the island of Sphacteria, not one Spartan hoplite surrendered at Lechaeum, however.

Admittedly, Xenophon stresses that the commander of the *mora* acted recklessly, but the success of peltasts was a shock an-

Lechaeum road in Corinth connected the city to its military port at Lechaeum. Originally, the city and the port were connected by walls, similar to those at Athens.
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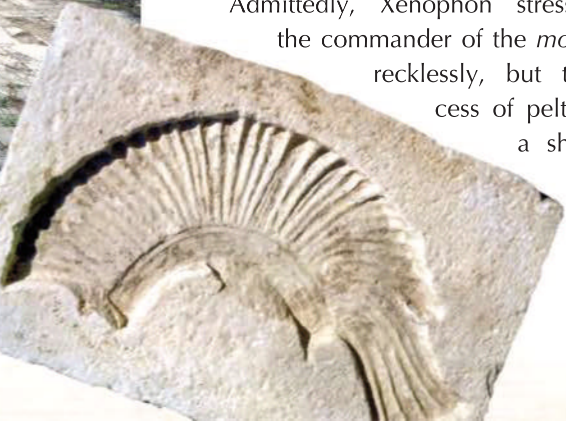

An apparent mould for a helmet crest found in Tegea, ally of Sparta, dated to the fourth century BC.
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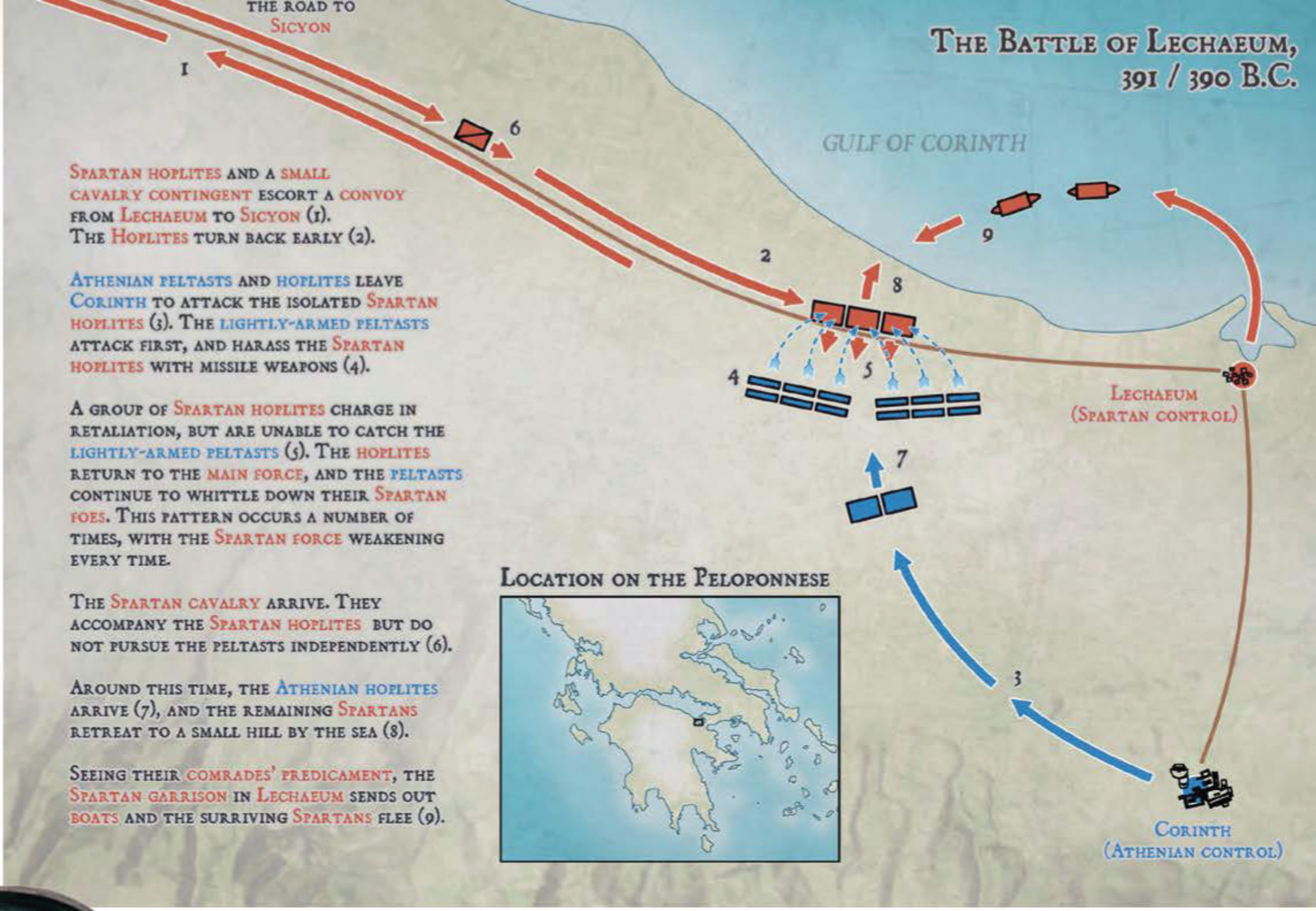
THE ROAD TO SICYON
1
6
GULF OF CORINTH
9
2
8
4
5
7
3
LOCATION ON THE PELOPONNESE
LECHAEUM (SPARTAN CONTROL)
CORINTH (ATHENIAN CONTROL)

THE BATTLE OF LECHAEUM, 391 / 390 B.C.

SPARTAN HOPLITES AND A SMALL CAVALRY CONTINGENT ESCORT A CONVOY FROM LECHAEUM TO SICYON (1). THE HOPLITES TURN BACK EARLY (2).

ATHENIAN PELTASTS AND HOPLITES LEAVE CORINTH TO ATTACK THE ISOLATED SPARTAN HOPLITES (3). THE LIGHTLY-ARMED PELTASTS ATTACK FIRST, AND HARASS THE SPARTAN HOPLITES WITH MISSILE WEAPONS (4).

A GROUP OF SPARTAN HOPLITES CHARGE IN RETALIATION, BUT ARE UNABLE TO CATCH THE LIGHTLY-ARMED PELTASTS (5). THE HOPLITES RETURN TO THE MAIN FORCE, AND THE PELTASTS CONTINUE TO WHITTLE DOWN THEIR SPARTAN FOES. THIS PATTERN OCCURS A NUMBER OF TIMES, WITH THE SPARTAN FORCE WEAKENING EVERY TIME.

THE SPARTAN CAVALRY ARRIVE. THEY ACCOMPANY THE SPARTAN HOPLITES BUT DO NOT PURSUE THE PELTASTS INDEPENDENTLY (6).

AROUND THIS TIME, THE ATHENIAN HOPLITES ARRIVE (7), AND THE REMAINING SPARTANS RETREAT TO A SMALL HILL BY THE SEA (8).

SEEING THEIR COMRADES' PREDICAMENT, THE SPARTAN GARRISON IN LECHAEUM SENDS OUT BOATS AND THE SURRIVING SPARTANS FLEE (9).

The course of the battle of Lechaeum where Iphicrates' peltasts whittled down and finally put to flight an entire *mora* of Spartan hoplites.

© Richard Thomson

Fourth-century BC phalera depicting a battle between two Greek warriors and a mounted Amazon.

© The State Hermitage Museum

yway, especially since the Spartan hoplites were highly trained. Xenophon is silent on what this *mora* commander did during the repeated attacks of the peltasts. It is worth noting however, that the clash was *de facto* an example of combined-arms tactics – at least at some phase in the battle, since both the Spartan and Athenian sides had mounted cavalry (the Spartan *mora* had about 100 horsemen), albeit used differently. Of most interest to scholars is the formation of peltasts, whose successes under the command of Iphicrates in the Peloponnese (first in Arcadia, then around Corinth) have been linked to the military reforms carried out by the talented Athenian commander (Diodorus 15.44; Nepos *Iphicrates* 1.3-4). This 'reform of the peltasts' is disputed, almost as much as the so-called 'hoplite revolution'. The historicity of this famous reform of light-armed men has been questioned by Best (1969), but most scholars believe that it did take place, although only in the 370s BC. This would mean that, at Lechaeum, there were ordinary javelin-throwers fighting, similar to those at Sphacteria in 425 BC, about whose way of fighting the historian Thucydides (4.34) writes that they "flaunted stones, arrows from bows, javelins and whatever they had at hand". It must be remembered, however, that the popularity of light-armed formations in campaigns conducted in the fourth century (peltasts are very frequently mentioned in Xenophon's *Anabasis*), as well as their successes, did not mean that the traditional phalanx of heavy-armed infantrymen lost its importance. Hoplites continued to form the backbone of the armies of the Greek *poleis*. Be that as it may, the lesson from Xenophon's account of Lechaeum (and let us add that a fellow commander and writer, Aeneas Tacticus, came to similar conclusions) was clear: an interaction of different formations could guarantee success. AW

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Silvered bronze Chalcidian-style helmet from Attica, dated to the fourth century BC, missing its (hinged) cheek pieces.

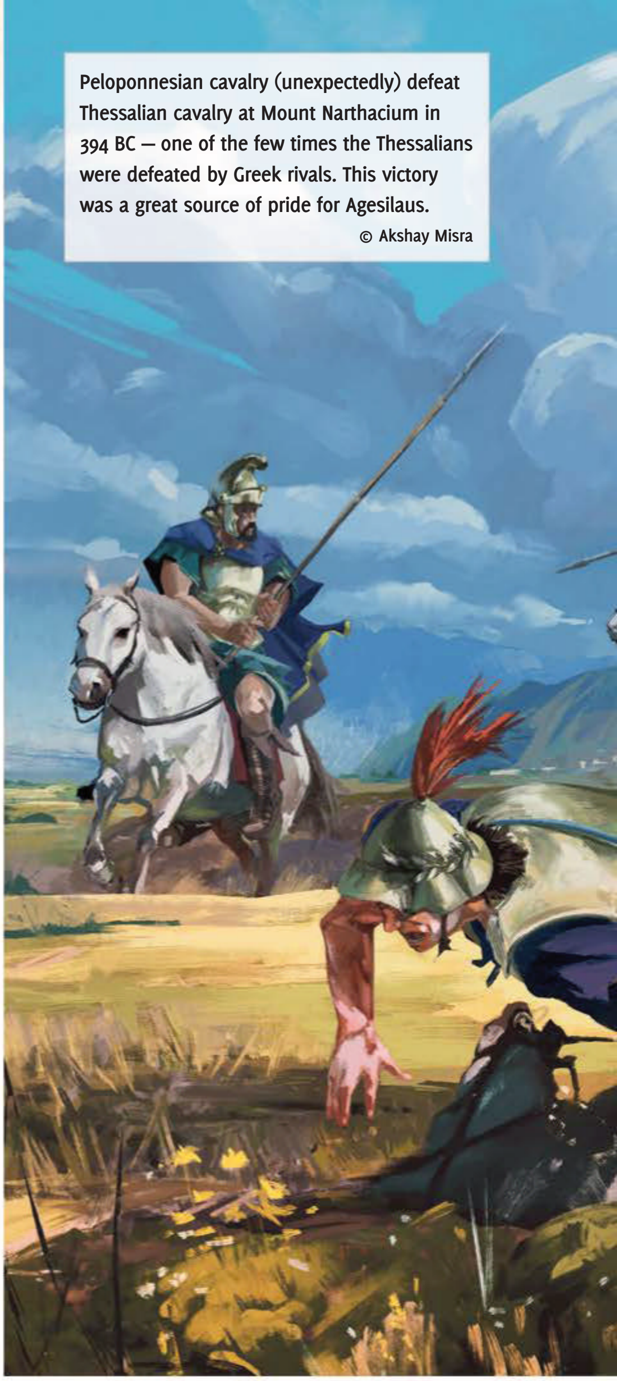
© The State Hermitage Museum

KING AGESILAUS II OF SPARTA ON CAMPAIGN

SPARTA'S GREAT INNOVATOR

Spartan commanders were not known for their innovation and adaptability. Thucydides has the Corinthian delegate at Sparta in 432 BC compare his hosts with the Athenians, stating: "(An Athenian) is always changing; fast to make a decision and quick at doing it. You, on the other hand, are good at keeping things as they are" (1.70) and "…your whole way of life is out of date when compared to theirs" (1.71).

By John Diamond



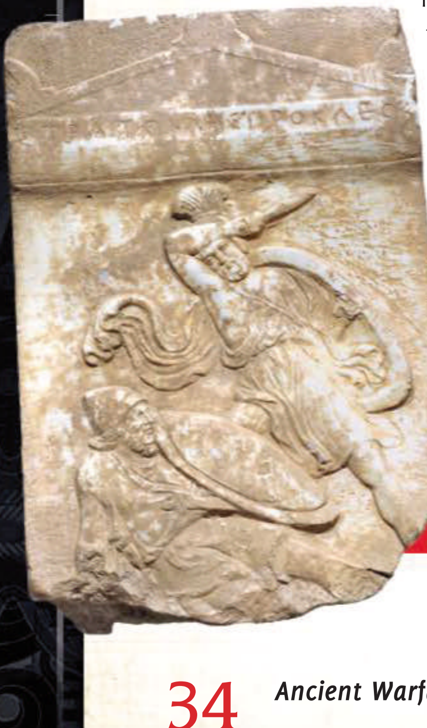
Peloponnesian cavalry (unexpectedly) defeat Thessalian cavalry at Mount Narthacium in 394 BC – one of the few times the Thessalians were defeated by Greek rivals. This victory was a great source of pride for Agesilaus.
© Akshay Misra

Agesilaus II of Sparta was not your 'usual' Spartan leader, however; he certainly did not fit the stereotype. A commander who defied military convention, he was willing to innovate and use his troops, especially his hoplites, aggressively and imaginatively. Born lame, the first surprising aspect of his eventful life was that he was allowed to survive, and furthermore, was permitted to pass through the Spartan *agoge*. What was even more surprising was Sparta's acceptance of his ascension to the kingship despite his obvious lameness. He was to prove an innovative and flexible commander who was able to plan and implement a wide range of tactical innovations against a significant variety of enemies including Persians, Greeks, Illyrians, Thracians, and Egyptians.

Agesilaus in the sources

We have several different accounts for Agesilaus' career. The first is Xenophon, a contemporary of Agesilaus; the second is Diodorus, writing in the first century BC. He made use of several now-lost histories from the fourth century BC, such as the *Hellenica Oxyrhynca* and the work of Ephorus; the third is Plutarch, who wrote a biography of Agesilaus in the second century AD, likewise utilizing earlier sources. Each one has its limitations.

Xenophon was an admirer of Agesilaus, serving under him in Asia Minor and even fighting for him against his native Athens during the Corinthian War. Given his close association with the Spartan king, which may have resulted in his exile from Athens, we must guard against a likely sympathetic representation of Agesilaus. As for Diodorus, as his sources are largely lost, we must rely on him using them appropriately. There are also discrepancies between his account and Xenophon's, exemplified by the battle fought near the River Pactolus in Asia Minor, which Xenophon says was a three-day engagement, but which does not appear at all in Diodorus. Plutarch, meanwhile, was writing biography, not history. He tends to include more fanciful elements, and moralizing statements.



The tombstone of a soldier named Stratokles from Attica, who died 390-380 BC. Both warriors are shown with helmet, shield, and sword, but otherwise seem to wear no armour.
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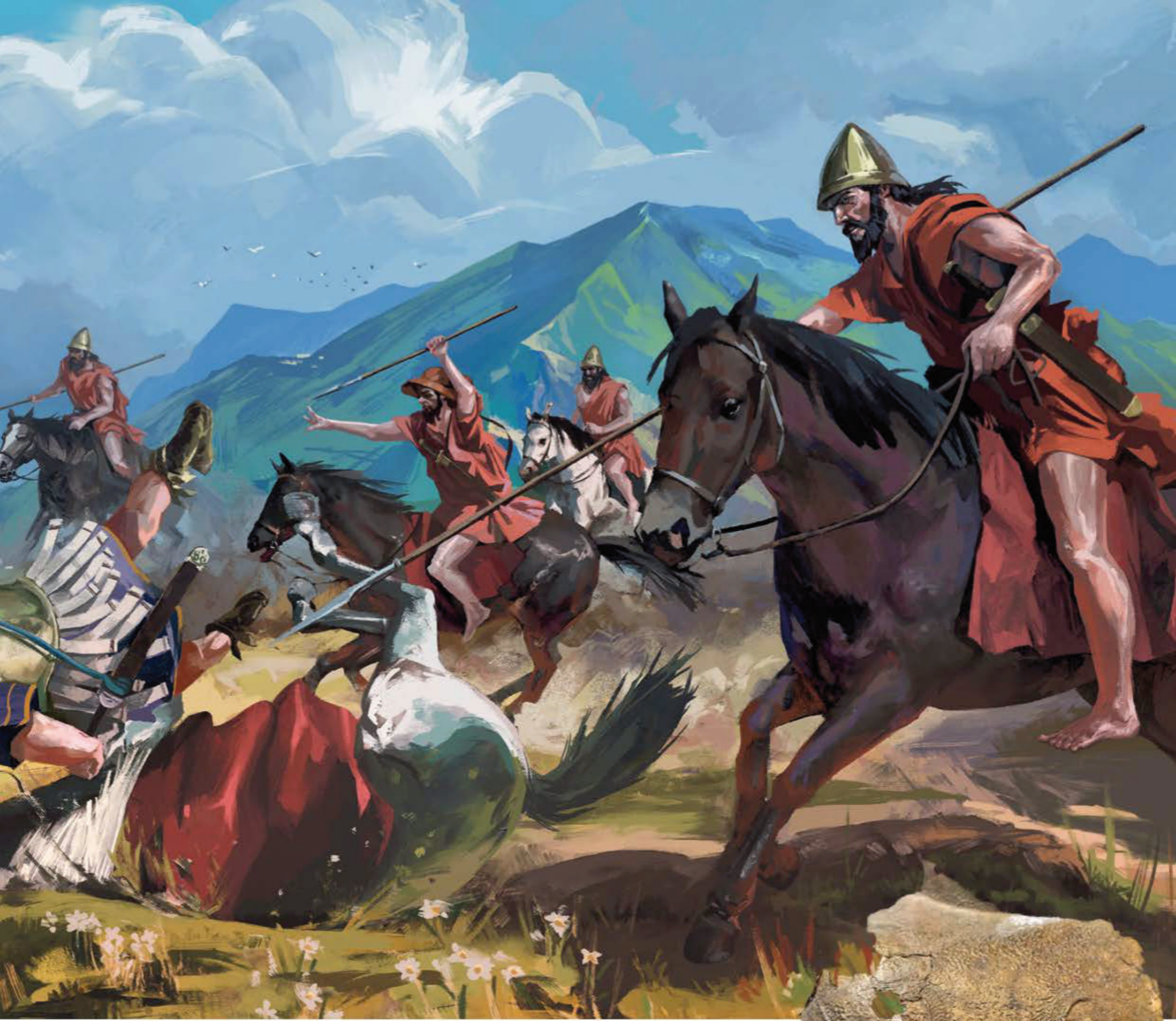

The Thracians who opposed Agesilaus passage both imported and copied Greek styles of armour, such as this cuirass dated to the second half of the fifth century BC.

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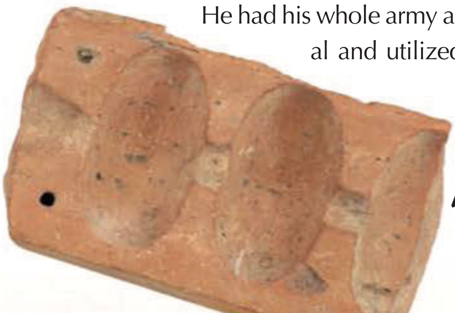
Agesilaus in Asia Minor

Setting out in late 396 to campaign against the Persians in Asia Minor, Agesilaus collected his army at Ephesus in the spring of 395. There, he organized competitions between the various contingents in an attempt to improve their efficiency and conditioning. When he properly embark upon his campaign, Agesilaus' army was attacked by the local Persian satrap.

In Xenophon's account, the Persian force, commanded by Tissaphernes, contained only cavalry. The Persian cavalry had ridden down the Greek foragers near the River Pactolus, and Agesilaus had ordered his cavalry up in support. He had his whole army at his disposal and utilized his troops in an unusual fashion. He ordered his phalanx forward and ordered the younger troops to race ahead with the peltasts to confront and engage the Persian cavalry. His cavalry struck the Persians first and were held until his infantry joined the fray. The Persians then broke. In Diodorus' account, however, Agesilaus' march away from the coast was under constant harassment by Tissaphernes' army. Agesilaus proceeded in hollow square, fending off attacks by the Persians. Placing some troops in a forward concealed position, he continued his march and led the Persians into the ambush. He then about-faced and launched his army against Tissaphernes's army, winning a significant victory. The defeated Persians fled.



An amphora handle recycled into a mould for casting sling bullets, dated to the fourth-third centuries BC.

© The State Hermitage Museum

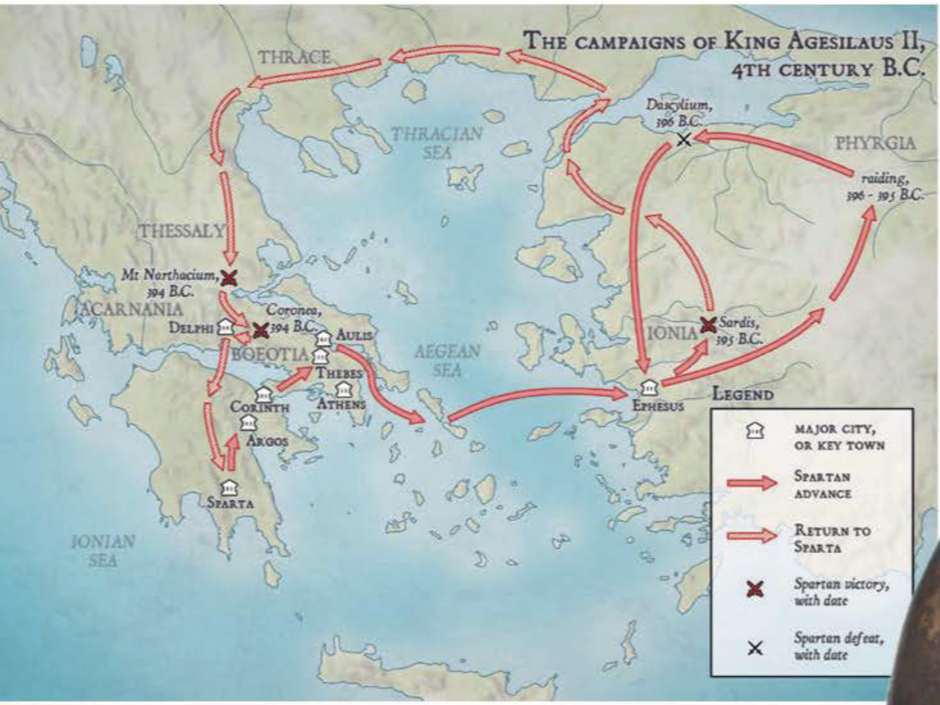
The scene on this Attic red-figure pelike, dated to ca. 460–450 BC and attributed to the Nausicaä Painter, depicts Rhea handing over her newborn child to Kronos. He was destined to be overthrown by one of his own children, and so he swallowed them all.
© Metropolitan Museum of Art

The lameness of Agesilaus

Based on Plutarch's life of the legendary Spartan lawgiver Lycurgus (16.1-2), Spartan male babies were examined by tribal elders and, if judged "well-built and sturdy", the child was assigned one of the lots of land set aside for male citizens. If the baby was "ill-born and deformed," however, it was taken to the cave of the Kaiadas on Mount Taygetus (sometimes described as a cliff or chasm). Agesilaus was clearly not exposed, nor was he born as the Eurypontid heir (that was his elder half-brother Agis II) so should not have received special treatment. Agesilaus was not expected to succeed his half-brother, until the parentage of Agis' only son, Leotychides, was disputed and he was excluded from the succession. In fact, also according to Plutarch (*Agesilaus* 2.2), Agesilaus bore his physical misfortune with "ease and gaiety" and was the first to joke about it himself. He also undertook every hardship and every task in the *agoge* and beyond to prove that his deformity was no barrier. We are told that Agesilaus forbade any likeness of him to be made and is described as "a little man of unimposing presence." It certainly did not stop him guiding Sparta in challenging times.

Regardless of which account has greater accuracy, Agesilaus shows himself adaptable and innovative in both. In Xenophon, he ensured that the mutually supporting roles of hoplites, peltasts, and cavalry were coordinated to defeat the Persian cavalry. In Diodorus, he was able to maintain the pace of his advance by moving in hollow square. Here, again, is the use of this specific formation, used by Brasidas in 424 and described by Thucydides (see Diamond, *AW* IV.4). Agesilaus was then able to ambush Tissaphernes's forces and win a victory. Diodorus uses the term *stratioton* to describe the troops that the Spartan king sent ahead to prepare the ambush, so we are not sure whether they were hoplites or peltasts, but as they sprung the ambush, they sang the paean, so they could very well have been hoplites.

Agesilaus' expedition to Asia Minor and his (rapid) return to Greece, 396-394 BC. He marched his army from the Chersonese to Boeotia inside a month.
© Richard Thomson



The Corinthian War

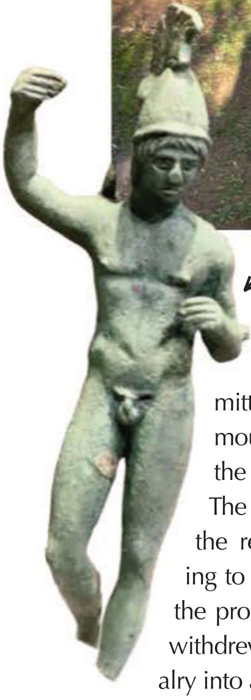
Agesilaus' return to Greece was prompted by the outbreak of war between Sparta and a coalition of Greek states in 395 BC. His return journey (394) was accompanied by a series of measures that are particularly noteworthy. Since the majority of his soldiers were not eager for an expedition to Greece, in the Chersonese he proclaimed prizes would be awarded to the best unit of hoplites, archers, peltasts, and cavalry. By so doing, he was able to bring to the battlefield an excellently-equipped, well-trained, and motivated army. The Greek cities of Asia Minor also provided contingents of soldiers who intended to return with the Spartan king after the expected victory in Greece.

Agesilaus marched from the Chersonese to Boeotia within a month, much faster than Xerxes' year-long march and despite opposition. That came from a Thracian tribe, the Tralleis, who were apparently brushed aside easily, but the sources do not give any indication about how this was achieved. The Thessalians were more formidable and reputed to have the best cavalry in Greece. According to Xenophon, Agesilaus' cavalry, which had been raised in Asia Minor, defeated Thessalian cavalry near Mount Narthacium. This is one of the few recorded instances where Thessalian cavalry was defeated at the hands of other Greeks.

Close cooperation between the different segments of Agesilaus' army displayed his tactical ability and he again used the hollow square to protect his infantry and baggage. Initially wary of com-

Pilos-type helmet from the late fifth or early fourth century BC. This style became quite common both in Greece and in Italy.
© The State Hermitage Museum

Only ruins of the city Sparta now remain, and these are partially overgrown by olive trees.
© Miltos Gikas / Wikimedia Commons



A Hellenistic-era bronze statuette of a warrior or Ares. His simple pilos-style helmet carries a detailed crest.
© Lauren van Zoonen

mitting his cavalry, he had half his mounted troops in front of the square, the other half protecting the rear.

The Thessalians continued to harass the rearguard, but they were unwilling to engage Agesilaus' cavalry due to the proximity of his infantry and slowly withdrew. Agesilaus ordered his own cavalry into a full charge and caught the Thessalians unprepared and routed them. Xenophon relates that Agesilaus was reputed to have been very proud that a cavalry force selected and trained by him had defeated the vaunted Thessalians. It was quite a break with tradition.

The tactics that Agesilaus adopted at the Battle of Coronea in 394 BC exhibited a mixture of traditional tactics and innovation. This battle, fought against a combined Theban, Athenian, and Argive force, saw both armies deploy their best troops on their respective right wings in time-honoured fashion – Agesilaus placed the Spartans on the right wing, while the Thebans took the allies' right wing. Our sources, unfortunately, do not give us numbers on either side. The battle began as a conventional hoplite engagement, with the result that the Spartan and Theban forces on their respective right wings routed their enemies' allies on the opposing wings. As at Mantinea in 418 BC and Nemea in 394 BC, the Spartans (and the Thebans) were prepared to accept the risk of one wing being smashed to achieve victory on their respective flank. The Spartans, however, had the training and the control to pivot their victorious wing into the Thebans who found Agesilaus' army between them and the safe mountain country where the Spartans' Argive allies had fled.

Agesilaus had countermarched his troops in a superb demonstration of skill. But rather than strike the Thebans in the exposed flank for an easy victory, Agesilaus chose to face the Thebans frontally. The latter accepted the challenge, and the two forces crashed into each other.

By positioning his phalanx in the path of the Thebans Agesilaus effectively blocked the Thebans' only path of retreat in order to inflict a more crushing defeat, leaving them only one option if they broke: to flee towards the Spartan camp – in other words, they had nowhere to run. Hitting the Thebans in the flank, although a safer option,

Cavalry wearing different styles of headgear, as depicted on the heroön of King Pericles of Lycia in Limyra, dated to ca 370-350 BC.
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A relief from the Poliandreion Memorial; a mass grave commemorating Athenian forces that fell at the river Nemea and Coronea during the Corinthian War, and dated to 394–393 BC. The inscription at the bottom is the beginning of a list with names of Athenian casualties, arranged according to their tribes.
© Gary Todd / Flickr

did not give the Spartans the chance of annihilating them, and Agesilaus was, arguably, correct in choosing the much tougher option in the hopes of knocking out Sparta's most dangerous foe in one decisive engagement. This unusual action was never replicated by any other Greek commander.

Unfortunately for the Spartan king, the Thebans proved much tougher than he anticipated. The fight against the Theban phalanx was long, bloody, and drawn out, where the superior training and discipline of the Spartans finally prevailed. It was described by Xenophon as a battle "like no other in our time" (*Agesilaus* 2.9).

Agesilaus' campaign in Acarnania in 389 equally shows his innovative ability. After ravaging the countryside, he was attacked by a large force of Acarnanian peltasts. Over two days, the Acarnanians launched their assaults from higher ground, and while inflicting some casualties on Agesilaus' troops, sustained none themselves. The Acarnanians withdrew to the safety of the rough terrain any time they were approached by Agesilaus' cavalry and hoplites.

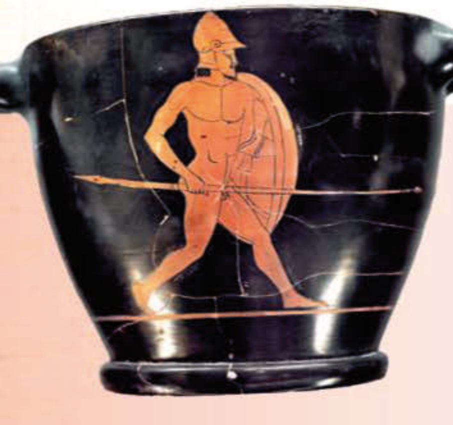
Agesilaus decided to concentrate on the large number of enemies who were attacking from his left, since, as Xenophon says, the high ground in this direction was easier going for both hoplites and cavalry. Once again, he resorted to the standard Spartan tactic of ordering the youngest troops to charge out from the phalanx. This time he carefully coordinated and timed his response. The Acarnanians fled, trying to escape to the safety of their own hoplites on the slopes above them. The hoplites, however, were quickly overcome by Agesilaus' main army, which had quickly followed the younger hoplites and the cavalry.

The key factor to note here is that Agesilaus was able to time his counterattack for maximum effect and catch many of the peltasts using a combination of hoplites and cavalry. This mutual support was crucial in providing not only mobile and fast protection for his hoplites by his cavalry, but his hoplites were able to provide a hard cutting edge to help protect his cavalry. When led well, hoplites and cavalry could perform admirably and overcome the enemy. In this instance, Agesilaus was able to overcome his deficiency in peltasts by utilizing the inherent strengths of his hoplites and cavalry to complement each other, and in doing so he was able, not merely, to drive off the enemy light troops but to defeat the enemy army.

Bronze greaves dated to the fourth century BC, found on the Crimea near the Greek city of Pantikapaion.
© The State Hermitage Museum

Agesilaus in Egypt

One final example of Agesilaus' ability to innovate is described by Plutarch when



Fifth-century BC depiction of a running hoplite. The fact that he is armed suggests this is not the hoplite race, but that he charges out of a phalanx.
© Dan Diffendale / Flickr

The *Ekdromoi*

During the battle of Lechaeum the hoplites aged between twenty and thirty were ordered to chase off the attacks being made by the peltasts of Iphicrates (*Hellenica* 4.5.15). These men were clearly operating as *ekdromoi* – a term first used by Thucydides of Brasidas' tactic in 423 BC (4.125.3). Brasidas' selected "The youngest men of his soldiers he appointed to run out upon the enemy when they charged the army anywhere" and, it seems this tactic was adopted in Agesilaus' army too. Xenophon does not use the term *ekdromoi*, however. Xenophon describes the same tactic used by Pausanias in 403 BC in the Piraeus (*Hellenica* 2.4.32) where "he ordered the cavalry to charge upon them at full speed, and the infantrymen within ten years of military age to follow the cavalry; while he himself with the rest of his troops came along in the rear. And they killed nearly thirty of the enemy's light troops and pursued the rest to the theatre in Piraeus." This success in pursuing light troops may have led to the attempt of the same tactic at Lechaeum and elsewhere.

A silver coin from Pharsalos, dated to ca. 424–404 BC, depicting a hunter on horseback wearing a petasos and chlamys, and holding a throwing stick.
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(Top) **The Tropaion of the Thebans on the battlefield of Leuctra, perhaps erected on the spot where the Theban phalanx broke the Spartans.**
© George E. Koronaios / Wikimedia Commons

(Bottom) **Ruins of the ancient city wall of Stratos, the capital of Acarnania and one of the best fortified towns in this region. Its walls were 7,5 km long with towers at regular intervals.**
© Karaískos Tásos / Wikimedia Commons

the Spartan king was serving as a mercenary in Egypt. Supporting the Egyptian Pharoah Nectanebo II against the Persians and other Egyptian rivals, Agesilaus found himself besieged in Nectanebo's city by a rival faction. Agesilaus was urged by Nectanebo's Egyptians to go out and face a rival claimant to the throne, whose army considerably outnumbered Agesilaus' forces. The enemy, according to Plutarch, numbered nearly 100,000 men. We are not told the size of Agesilaus' force. The besiegers commenced building a deep trench around the city, with the intention of completely encircling the defenders using the existing irrigation channels. Ignoring the Egyptians' appeals to go out and face the enemy, Agesilaus waited until the besiegers had almost completed the encirclement of the city, with the two ends of the trench being quite close, just the right size to make it possible to fight the besiegers on fair and equal terms.

Agesilaus formed the frontage of his phalanx so that it was just wide enough to cover the gap and advanced towards the enemy. The enemy raced to intercept him, but he plugged the gap between the two sides of the trench. The rival Egyptian force threw itself against Agesilaus' men but could make no headway in this frontal charge. Plutarch then emphasizes the fact that Agesilaus would retreat a little way and give ground to the enemy and then wheel around to face them, just as Leonidas did at Thermopylae, causing casualties. These feints drew the enemy in until he was finally able to "bottle the whole mass" of them in a place which had deep irrigation channels. He then filled the entire space between these channels with the front of his phalanx, so that the enemy could not outflank or outmanoeuvre him. He routed them, inflicting huge losses. Agesilaus' actions here were unique and show a mastery of his surroundings and situation as well as the ability to effectively lead his troops with flair and determination.

Conclusion

Agesilaus fought all manner of enemies throughout his 40-year-long career. Able to motivate his men and wield his forces innovatively, he was able to maximize the combat efficiency of each troop type under his command and utilize their different capabilities to win some resounding victories. Despite this, he is criticized for failing to obey one of the key injunctions of the famous Spartan lawgiver Lycurgus. According to Plutarch, Lycurgus gave a considered pronouncement regarding Spartan foreign policy. He specifically banned frequent campaigns against the same foes, so that these should not get used to defending themselves and thus become skilled in warfare. This was wise advice, and Plutarch specifically levelled this charge against Agesilaus, pointing out that because he fought the Thebans so often, they were able to defeat the Spartans at Leuctra in 371 BC. Perhaps he should have taken more note of the effect of the deep, close-packed formation of the Theban hoplites at Coronea. Despite his innovation on the battlefield and his military ability, Agesilaus' constant campaigns sowed the seeds of Sparta's eventual defeat.

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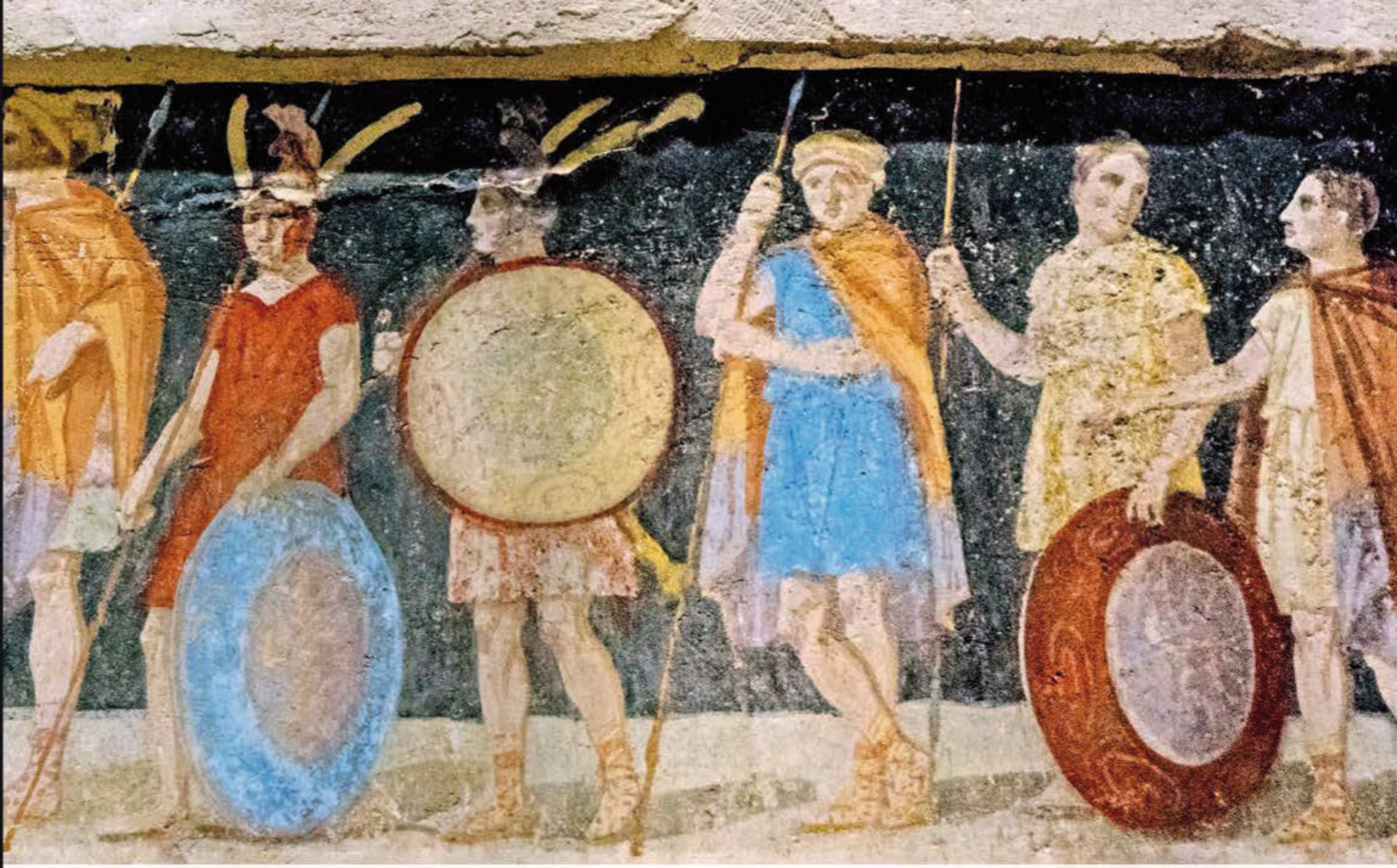
Base for a statue of pharaoh Nectanebo II. His name is chiseled in a cartouche and flanked by two bound prisoners. They represent defeated peoples from the north and south, respectively.
© Vania Teofilo / Wikimedia Commons



Detail from the painted frieze of a Macedonian tomb in Agios Athanasios, ca. 325-300 BC, showing men with Macedonian shields and spears.

FOURTH-CENTURY BC SPEARS AND PHALANXES

MAKING THEM LONGER AND DEEPER

By Murray Dahm

The two most important military reforms in the first half of the fourth century BC were, arguably, the lengthening of the spear and the deepening of the phalanx. These would coalesce in the Macedonian phalanx of the second half of the century with its long *sarissae* and a regular phalanx depth of sixteen ranks. In the first part of the fourth century BC, however, other combinations and reforms were investigated.

The depth of hoplite phalanxes had always fluctuated depending upon circumstances, the number of available men, and the formations of each city. The depth of phalanxes could range from eight ranks to 50. Thucydides tells us that at the battle of Mantinea, in 418 BC, each Spartan *lochos* had a different depth, based on the wishes of its commander. Only the average depth came out to a depth of eight ranks (Thucydides, 5.68.1–3). Although some cities did not change the depth of their formations, by the end of the fourth century the Macedonian-style phalanx with its depth of sixteen ranks had become dominant.

Hellenistic funerary stele known as the Column of Warriors in ancient Demetrias, Thessaly, third–second century BC. The fresco shows warriors with spears; one blade can be seen.

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The lengthening of the spear

The adoption of the long *sarissa* by Philip II and his Macedonian army may have come from the reforms of the Athenian general Iphicrates, who was said to have lengthened the spear (Nepos, *Iphicrates* 11.1.3–4; Diodorus, 15.44). While he was in Macedon, Iphicrates was, apparently, treated like a son by Queen Eurydice, Philip II's mother (Aeschines, *On the Embassy* 26–30), and in turn he protected her and her sons Perdiccas and Philip after the death of Amyntas III (Cornelius Nepos, *Iphicrates* 11.3.2).

Nepos introduces Iphicrates (11.1) stating that "his knowledge was so great that he introduced many novelties in military equipment, as well as many improvements" (*Iphicrates* 11.1). Apparently, he:

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Spearheads from the Macedonian burial mound at Chaeronea, 338 BC.

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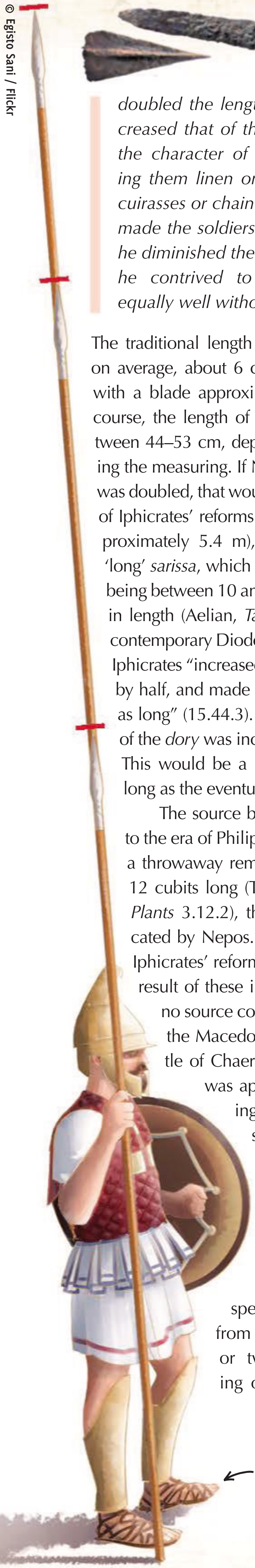
> *doubled the length of the spear and increased that of the swords; he changed the character of their breastplates, giving them linen ones in place of bronze cuirasses or chain armour. In that way he made the soldiers more active; for while he diminished the weight of their armour, he contrived to protect their bodies equally well without overloading them.*



Early-fourth century BC hoplite with three lengths of spear - six cubits (2.7m), nine cubits (4m), and twelve cubits (5.4m).

© Julia Lillo

The traditional length of the *dory* spear was, on average, about 6 cubits (2.7 m) in length, with a blade approximately 27 cm long. Of course, the length of a cubit itself varied between 44–53 cm, depending on the *polis* doing the measuring. If Nepos is correct and this was doubled, that would have made the spears of Iphicrates' reforms 12 cubits in length (approximately 5.4 m), the same as the later 'long' *sarissa*, which is variously described as being between 10 and 16 cubits (4.5m-7.2m) in length (Aelian, *Tactica* 12, 14.1). Nepos' contemporary Diodorus, however, states that Iphicrates "increased the length of the spears by half, and made the swords almost twice as long" (15.44.3). If that is true, the length of the *dory* was increased to 9 cubits (4 m). This would be a longer spear but not as long as the eventual length of the *sarissa*.

The source by far the closest in time to the era of Philip and Alexander states in a throwaway remark that the *sarissa* was 12 cubits long (Theophrastus, *History of Plants* 3.12.2), the same length as indicated by Nepos. This has no bearing on Iphicrates' reforms, but it tells us the end result of these innovation. Interestingly, no source comments on the length of the Macedonian *sarissae* at the Battle of Chaeronea in 338 BC. If that was apparently not worth noting, it may suggest longer spears had already been in use for several decades by that time.

So what happened exactly? Iphicrates is credited with increasing the length of the spears of his infantrymen from about six cubits to nine or twelve cubits, depending on whether we believe Nepos or Diodorus, both writing some three centuries after the events. Unfortunately, archaeology has not been particularly useful in confirming the reality of these reforms. Art too does not seem to provide us with any clues. The earliest archaeological evidence of the *sarissa* actually comes from the Macedonian tumulus at Chaeronea and the earliest mention of their use in battle comes from Diodorus' account of the battle of Chaeronea.

According to Diodorus, however, in the reforms of shield, spear, and sword length "the actual use of these arms confirmed the initial test and from the success of the experiment won great fame for the inventive genius of the general" (15.44.3). There were other reforms too, such as making boots which were light and easy to untie, which continued to be called "iphicratids" after him (15.44.4). Frustratingly, Diodorus does not discuss these other reforms, as to do so would be "tedious".

The Battle of Chaeronea is clearly the point where a period of experimentation had been completed, and the *sarissa* had reached its established length. It may well be that there had been more experiments with the lengthening of the spear in the first half of the fourth century BC and that, as such, it was part of a wider trend and did not evoke any particular comment at its first known introduction on the battlefield. AW

Murray is the assistant editor of* Ancient Warfare *magazine.

Amphora, ca. 340-330 BC, showing an Amazonomachy. The warriors are shown using various lengths of spears.

© Art Institute Chicago

The restored Lion of Chaeronea, a monument erected over the burial ground of 256 members of the Theban Sacred Band who fell against Philip II at the battle of Chaeronea in 338 BC.

© George E. Koronaios / Wikimedia Commons

Chester city wall from Northgate to Phoenix Tower showing the cornice and repairs. Much of this section of wall dates back to Roman times.

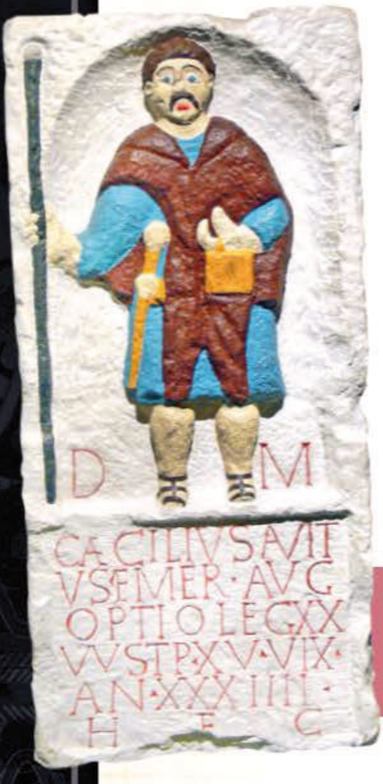
THE LEGIONARY FORTRESS OF CHESTER

DEVA VICTRIX

By Ben Chapman

The AD 70s saw a significant shift in the political map of Britannia; the land area now under direct Roman control had almost doubled. This increase was fuelled by the decision to annex the somewhat troubled allied kingdom of Brigantia in the north and completing the subjugation of the remaining tribes in what is now modern-day Wales.

This new strategic reality precipitated a redeployment of Roman military forces, with troops being moved from southern England to the North and to Wales. This repositioning saw *Legio II Adiutrix* move from Lindum Colonia (modern Lincoln) to begin construction of a new legionary fortress at the site of modern Chester sometime between AD 74–79. Two main factors led to the selection of Chester as the site for the legion's new base: the first was a political consideration related to the tribal boundaries in this area of Britannia, and the other was the physical geography of Chester and its immediate surroundings. Deva Victrix would come to sit on land held by the Cornovii, whose tribal polity was centred around Viroconium Cornoviorum (modern Wroxeter) about 65 km to the south. To the north-east lay the newly annexed territories of the Brigantes and to the west (in North Wales) were the lands of the Deceangli. Troops stationed at Deva would effectively separate the tribes from one another, reducing the risk of tribal leaders being able to coordinate in the event of unrest. The Roman preference for building legionary fortresses on or near a navigable waterway would see the fortress sited atop a sandstone ridge overlooking the northern bank of the river Dee. At this point in its course the river is effectively forced into a gorge, its narrowness and the presence of stone banks on either side allowed for the river to be bridged south of the fortress. The Dee then loops to the north, passing out of the



Coloured reconstruction of the epitaph of the *optio* Caecilius Avitus, who served in *Legio XX Valeria Victrix* during its occupation of Britannia.
© Wolfgang Sauber

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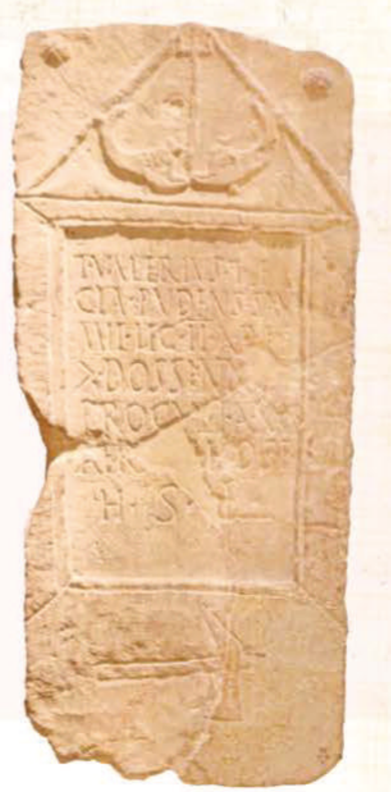
Bronze Hod Hill brooch, AD 50–75, a design particularly associated with *Legio XX*.

© North Lincolnshire Museum

The legions of Deva Victrix

Two legions occupied Deva for the entirety of its career as a legionary fortress: *Legio II Adiutrix* and *Legio XX Valeria Victrix*. *II Adiutrix* was founded in March 70 as several constitution diplomas show (*CIL* 16.10, *CIL* 16.11, *AE* 2002 1733) and was immediately dispatched to participate in ending Julius Civilis' revolt (Tacitus *Histories* 4.68, *AW* XV.2). From there it was despatched to Britain. Under Sextus Julius Frontinus it founded Deva in the mid-70s. It continued that work under the next governor, Gnaeus Julius Agricola. In ca. AD 88, *II Adiutrix* was moved to the Danube frontier by Domitian; at Deva, its place was taken by *XX Valeria Victrix*. That legion was one of the foundation legions of Augustus, probably founded after 31 BC although the origins of its epithet ("victorious black eagle" – the valeria was a black eagle) are unclear. In AD 43, it was part of the force of four legions used in the invasion of Britain under Claudius. It was involved in the campaign against Boudicca in AD 61, and in Agricola's northern campaigns AD 78-82. In 88, the legion was transferred to Deva. This would remain its base for the next three centuries until the Romans left Britain, although detachments of *Valeria Victrix* were involved in the construction of Hadrian's Wall, 122-125, and the Antonine Wall in 140, and they were in multiple campaigns in Britain, Gaul and Germany.



First-century AD tombstone from Lincoln dedicated to Titus Valerius Pudens who served in *Legio II Adiutrix* for six years, and died around AD 76. Notice the relief of a dolabra at the bottom of the stele.

© Lauren van Zoonen

Remains of a *spatha*, still in its scabbard, found at Deva and now in the Grosvenor museum.

© Ben Chapman

gorge and spreading into a bowl-like depression forming a natural harbour (now the site of the Roodee racecourse) where ships could be moored.

The grand fortress

Deva's ground plan conformed to the 'playing card' shape we associate with Roman legionary fortresses, with a curtain wall incorporating towers and pierced by four gateways. One factor that marks Deva out as unusual was its size. Covering a total area of 24.7 hectares (60.9 acres), it was around 20 per cent larger than its near contemporaries of York at 20.3 hectares (50.2 acres) and Caerleon at 20.5 hectares (50.6 acres). This larger area increased the circuit of the perimeter wall, so it is debated as to whether the fortress had 34 or 36 towers – unfortunately a lack of archaeological evidence means the exact number cannot be determined. Initially the defences were constructed of a turf embankment (possibly 3 m or 10 ft in height) topped by a timber palisade and walkway. In front of these defences was a rather modest ditch of about 1.5 m (5 ft) deep and about 3 m (10 ft) wide. Given that the new fortress sat in potentially hostile territory, it seems that the speed of construction was a factor when selecting wood for the defences and internal buildings. It does, however, seem that the intention was always to replace these wooden structures with stone in the future, as time and manpower allowed.

Fit for a governor?

While most of the internal buildings are typical of what you would expect within a legionary fortress, there are two buildings present that are not found elsewhere in Britain or across the Roman Empire. The remains of the first building are located to the north of the *Principia* (headquarters building), under the medieval cathedral, so we know frustratingly little about its intended use; from the fragmentary evidence we do have, it appears the building was later converted into a series of small storerooms facing out into a porticoed central courtyard. The second building sat to the northwest of the *Principia*, and although it has been investigated more thoroughly than the first building, its use remains somewhat enigmatic. The 'elliptical building', as it is known, although rectangular in plan, had an open central courtyard encircled by a portico behind which lay twelve

Remains of a small Roman military ship – a *Navis lusoria* – from the Late Roman Period (now in Mainz, Germany). Boat like this one were used for transporting soldiers – similar ones would have been a common sight in Chester's harbour.

© dronepicr / Flickr

Building tools from Hadrian's Wall: axe, pairing chisel, turf cutter, and a mason's chisel.
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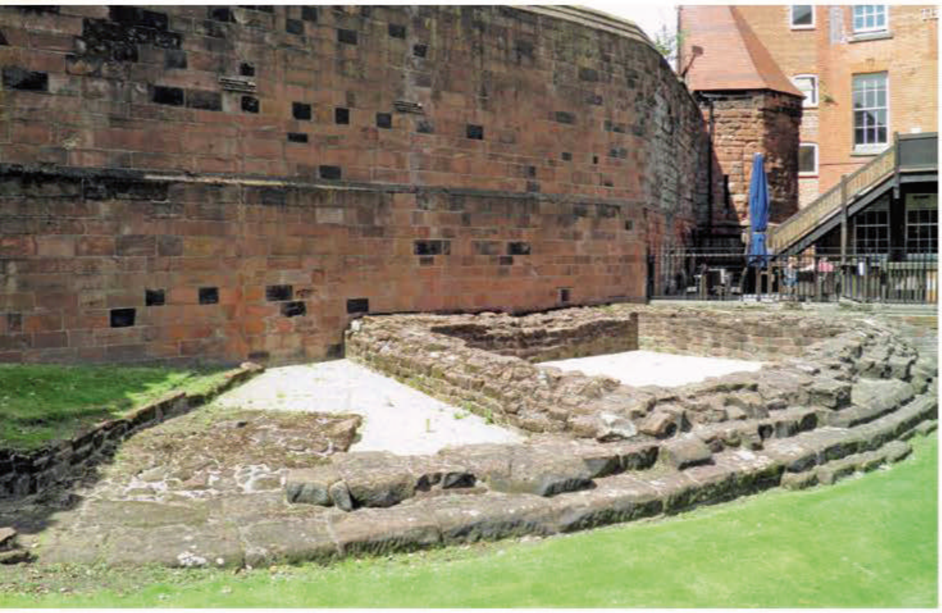
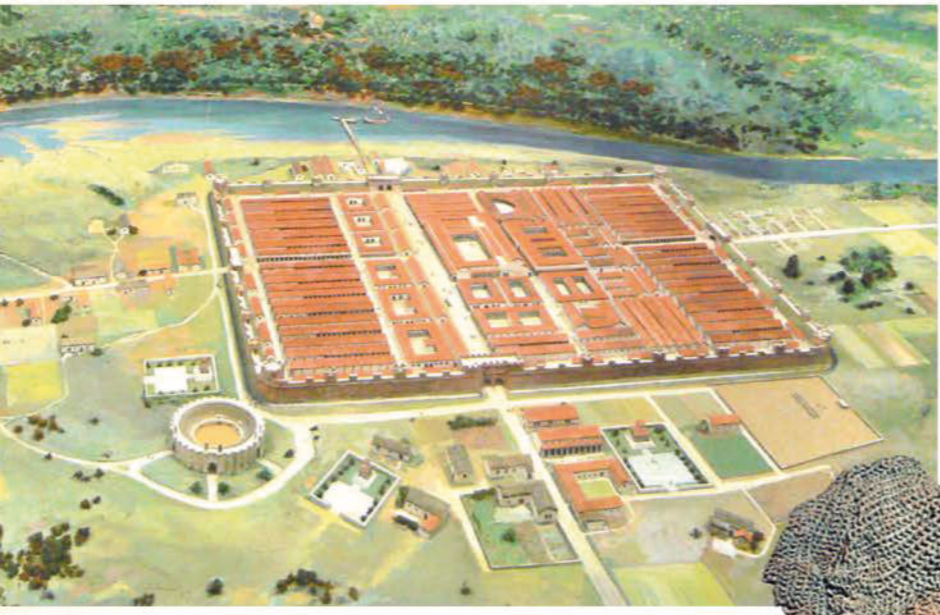
wedge-shaped chambers. This building was obviously intended to impress as lead pipes were laid to supply water to a fountain-monument in the central courtyard and statue plinths were located near the eastern entrance. Although construction work on the elliptical building had started during the earliest years of the fortress, it was abandoned before all the foundations had been completed. The site stood mostly unused until the start of the third century, when the building was completed, albeit to a slightly modified plan. The finished building would have been grand.

Since no close parallels have been found amongst military or civil buildings from across the Empire, theories on its purpose abound, from the somewhat mundane, such as a market or a palatial residence, to the more fanciful, such as a brothel or lighthouse. Much has also been made of the twelve chambers and whether they are linked to the twelve signs of the zodiac or the twelve principal gods of the Roman pantheon. Two theories that may deserve closer attention are based more on contemporary sources and what we know about the men building the fortress. The first of these theories hinges on a hint that Tacitus gives us of a potential Roman invasion of Ireland: with Chester's easy access to the Irish Sea, could these unusual buildings have been intended as the headquarters for the governor of a combined province of Britannia and Hibernia? The second theory also relates to the ease of access to the sea and what we know about *Legio II Adiutrix* – the legion was raised by Vespasian in AD 70 from the Ravennate fleet that had supported him against Vitellus during his bid for the purple. As the legion was experienced in naval and marine operations, were the buildings intended as the headquarters for a naval detachment of the *Classis Britannica*? Both theories are attractive, but without further archaeological work or the discovery of new historical sources the purpose of these buildings is likely to remain an intriguing mystery.



(Top) Foundations of the curved south-east angle of the wall with internal square tower at the Roman Fortress at Deva Victrix (Chester).
© Carole Raddato / Flickr



(Bottom) Reconstructed model of Deva Victrix in the Grosvenor Museum, Chester. Note the amphitheatre and the close proximity of the river and harbour; the Dee is now silted up and much further from Chester.
© Łukasz Nurczyski / Wikimedia Commons

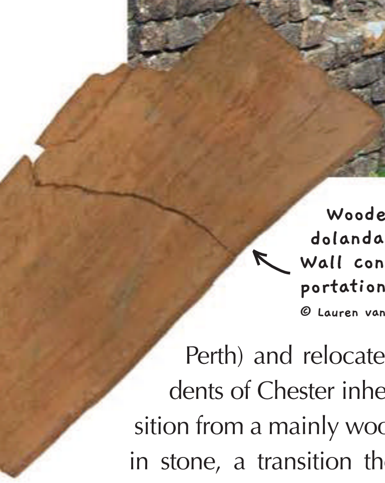
Changing of the guard

In the winter of AD 85/86, trouble erupted on the Danube frontier with Dacian forces crossing the frozen river to attack the province of Moesia; the Roman authorities were caught by surprise, the governor of Moesia was killed and his forces annihilated. In response, the emperor Domitian assembled legions from across the empire to combat this new threat, one of those selected was *Legio II Adiutrix*. The legion would never return to Britannia, instead taking up residence in Pannonia with a base at Sirmium (modern Sremska Mitrovica, Serbia).

During the years preceding the events on the Danube, the legions in Britain had been involved in Agricola's campaigns and were in the process of constructing a line of fortifications on the Gask ridge in the south-eastern highlands of Scotland. With Chester now unoccupied, it seems that *Legio XX Valeria Victrix* was ordered to abandon and demolish the fortress it was constructing at Inchtuthil (north of modern-day

Fragment of third-century AD Roman mail armour from Arbeia fortress (South Shields on the southern bank of the mouth of the Tyne).
© Carole Raddato / Flickr

A stretch of Hadrian's Wall; sections were constructed by ***Legio XX Valeria Victrix*** as well as the other legions and auxiliary units stationed in Britannia.
© Magnus Hagdorn / Wikimedia Commons



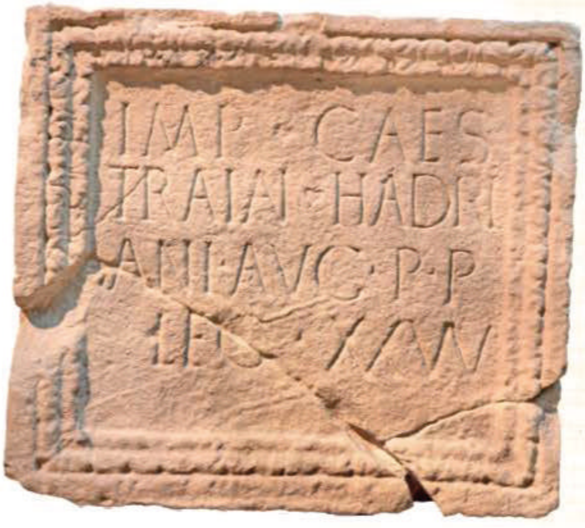
Wooden tablet from Vindolanda near Hadrian's Wall concerning the transportation of stone.
© Lauren van Zoonen

Perth) and relocate south. The new residents of Chester inherited a fortress in transition from a mainly wooden affair to one built in stone, a transition they continued. Part of this work involved building a new curtain wall; the pre-existing turf rampart was retained with stonework being added to the front. While this is not an unusual step to take, the stonework does display some slightly unexpected characteristics. The walls themselves were constructed using the technique known as *opus quadratum*, which involves laying large blocks in regular courses without bonding. This technique is not uncommon in a military setting, but it was usually reserved for the gates of a fort. Due to advances in the use of concrete, even in civic building projects, *opus quadratum* was limited to structures of significance such as aqueducts, city gates, temples, and triumphal arches. Decorative features were also incorporated into the wall, such as a moulded cornice running at the original level of the parapet walkway (which is still visible *in-situ*) and coping stones adorned with the elaborate carvings of a bearded deity. These embellishments and the use of *opus quadratum* was a far more labour-intensive undertaking and required a workforce with a significantly higher level of proficiency to execute. This is not necessarily an issue with the presence of skilled legionary stonemasons, but it does show that some practical considerations were being set aside to showcase Chester as a symbol of power and prestige beyond that of even the other legionary bases in Britain.

To the walls

Hadrian's accession to the purple resulted in a shift of imperial policy to one of withdrawal and consolidation. He travelled to the province of Britannia in AD 122 after a period of conflict, although it remains unclear who the opponent was, internal or external. Hadrian possibly hoped to prevent similar trouble from reoccurring in the future. During his visit, Hadrian initiated the construction of Hadrian's Wall, the remains of which are the most striking representation of Hadrian's new policy of consolidation. Running for eighty Roman miles (117 km), the

Inscription from Gabrosentum fort (Moresby, Cumbria) on Hadrian's Wall, AD 128-138, recording building work done by ***Legio XX Valeria Victrix***.
© Carole Raddato / Flickr



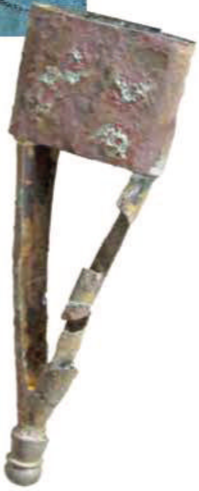
An assortment of *lorica segmentata* buckles and hinges, belt plates, and decorations from Deva.
© Ben Chapman

Chester's Roman Gardens; a public park with a collection of Deva's building fragments including pieces from the baths and legionary headquarters. © Andrew Woodvine / Wikimedia Commons

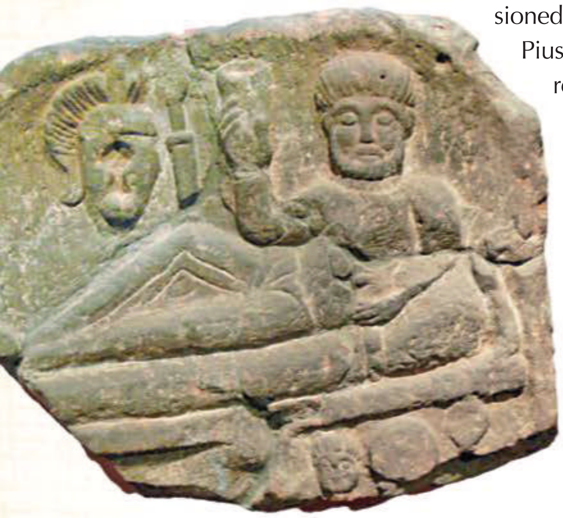
wall and its associated forts were a massive undertaking. All the legions stationed in Britian sent contingents to facilitate its construction, with multiple building inscriptions along the wall's length attesting to the presence of *Legio XX*. During the wall's construction major modifications to the original plan took place, in some cases this involved the wholesale demolition and rebuilding of entire sections of the defences. These alterations likely reflected military realities on the ground differing from the original vision for the wall, and certainly increased the resources, labour, and time required to complete the project.

Within twenty years, another more northernly set of fortifications would be commissioned by Hadrian's successor, Antonius Pius: the Antonine Wall. Both projects resulted in significant parts of *Legio XX* being absent from Chester for an extended period of time, and this is present in the archaeological record. Barrack blocks were allowed to become derelict and open spaces within the walls to become rubbish dumps or spoil heaps from industrial processes taking place within the fortress. Outside the walls, signs can also be gleaned that the local economy of the extramural settlements was impacted by the absence of such a large body of troops. With the soldier's wages and a significant portion of the 'camp followers' going north with the troops, demand for the goods and services provided in the *canabae* diminished and buildings fell into disrepair as a result.

This all points to the fact that Chester had essentially become a rear area depot, where fabrication, storage, and trans-shipment were being conducted. During this period, it is evident that maintenance of the defences was also neglected, resulting in sections of the curtain wall collapsing. Repairs to the northern ramparts show that, rather than fresh stone being cut from the local quarries, tombstones were robbed from the nearby cemetery and used as filling material in the core of the wall. This somewhat sacrilegious expedience has given us a treasure trove of well-preserved stonework to analyze in modern times, but it does point



Frame-type pugio sheath from Deva. Only the iron sections survive while the wooden core has long since rotted away. © Ben Chapman



Tombstone of an auxiliary cavalryman named Aurelius Lucius from Deva Victrix. He reclines on a couch, but his helmet and sword hang behind him. His beard, moustache, and other features of the stone suggest an origin north of the Danube. © Wolfgang Sauber / Wikimedia Commons

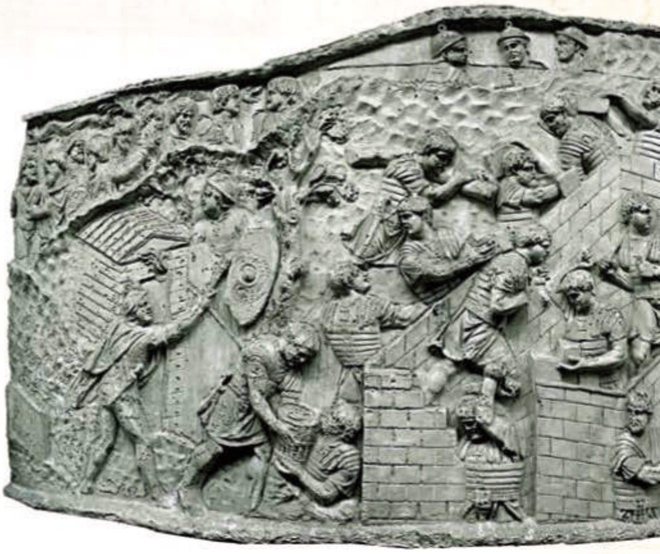
A socketed spearhead which would have been held onto the shaft with a rivet.
© Ben Chapman

to a somewhat rushed attempt to repair the defences quickly.

Restoration and final decline

By the start of the third century, the main body of *Legio XX* had returned to Deva and extensive building and restoration work took place. Formally empty plots either had buildings re-erected (barracks), planned buildings were finally finished (the elliptical building), or existing buildings saw extensive repair or remodelling work conducted (the baths). It has also been suggested that defences were extended to encompass parts of the *canabae* west of the fortress adjacent to the harbour – this does align with many Romano-British towns acquiring stone defences during this period. Although Britain itself seems to have largely been spared the worst privations of the era known at the 'crisis of the third century', its large garrison became a potent political tool for ambitious usurpers. Discounting the unfortunately brief stability introduced by the Tetrarchy under Diocletian, *Legio XX* likely sustained continual losses as troops left to fight for officers attempting to seize the imperial throne. A military presence still existed in Chester in the early fourth century, evidenced by the fact that most if not all the barracks blocks were still occupied; although we can only surmise this was still *Legio XX*, there is no firm archaeological evidence to confirm either way. Coins of Theodosius I (379–395) and Arcadius (395–408) have been found both inside and outside the fortress, but none of Honorius (393-423). That the *Notitia Dignitatum*, which shows the military disposition in Britain around the year AD 395 (see *AW* VI.5), makes no mention of a garrison stationed at Chester, coupled with the numismatic evidence and the infamous Rescript of Honorius, it seems likely that Deva ceased to be a base of the Roman army at some point in the AD 390s.

In the centuries that followed, Roman Deva Victrix transitioned to Anglo-Saxon Legacastir and then into modern Chester. The three and a half centuries of Roman history of Chester tells a fascinating story and gives context to the changes in imperial policy and military disposition within Britain and the wider empire. The story still holds many mysteries that can be re-examined and reinterpreted as new evidence comes to light, let us hope we do not have to wait too long. AW



Cast of a scene from Trajan's Column showing legionaries constructing a stone fortress. Now in the Museo della Civiltà Romana, Rome, Italy.
© Cassius Ahenobarbus / Wikimedia Commons

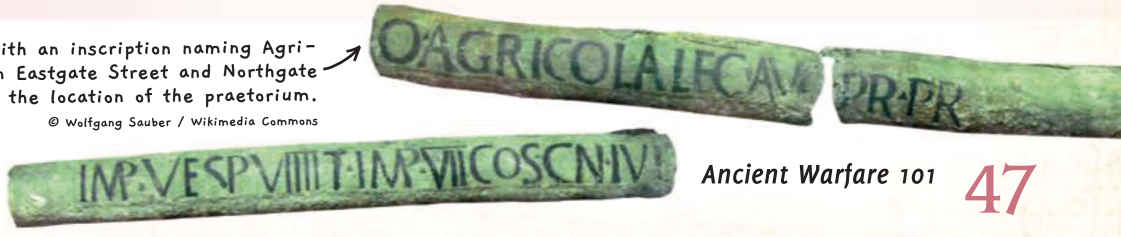
Ben Chapman is a dedicated history enthusiast and tour guide with a deep and lasting passion for the Roman Empire.

GOVERNORS OF ROMAN BRITIAN AD 43-97
Aulus Plautius (43–47/8)
Publius Ostorius Scapula (47/8–52)
Aulus Didius Gallus (52–57)
Quintus Veranius (57)
Gaius Suetonius Paulinus (58–61)
Publius Petronius Turpilianus (61–63)
Marcus Trebellius Maximus (63–69)
Marcus Vettius Bolanus (69–70/71)
Quintus Petillius Cerialis (70/71–73-74)
Sextus Julius Frontinus (73/74–77/78)
Gnaeus Julius Agricola (77/78–84/5)
…
Sallustius Lucullus (possibly 87– ca.89)
Aulus Vicirius Proculus (possibly 93)
Publius Metilius Nepos (possibly 96–97)

The first governors of Britain

From the conquest of Britannia in AD 43 we have, at times, surprisingly limited knowledge of the governors of the province; some are just names and there are large gaps where we know nothing. Aulus Plautius, who led the invasion, became the first governor. He was replaced by Publius Ostorious Scapula, who continued campaigning against the Brigantes, Silures and Ordovices but died in office. Scapula was replaced by Aulus Didius Gallus, who is criticized for merely holding what was already conquered (Tacitus *Agricola* 14). He inherited a tricky situation of rival claimants to several tribes and possibly a new emperor (Nero) who was uninterested in the province (Suetonius *Nero* 18). He was replaced by Quintus Veranius in 57 who reignited offensive operations – he boasted he could have conquered the whole island in two years – but died before the year was out. Gaius Suetonius Paulinus continued campaigning in Wales especially, but also faced and defeated the revolt of Boudicca in AD 61. Marcus Trebellius Maximus governed until 69 but clashed with the commander of *Legio XX* who mutinied and declared for Vitellius. Quintus Petillius Cerialis began offensive operations once more. These continued under Sextus Julius Frontinus who campaigned against the Silures and other Welsh tribes. He may also have pushed north and may have been the founder of Deva. Frontinus was followed by Gnaeus Julius Agricola who pushed Rome's conquests into Scotland.

Roman lead pipe with an inscription naming Agricola, found between Eastgate Street and Northgate Street, perhaps the location of the praetorium.
© Wolfgang Sauber / Wikimedia Commons



The west gate of the late Roman Saxon Shore fort at Pevensey in East Sussex, possibly still in use when the Spong Hill man was created.

REFLECTIONS ON THE SPONG HILL MAN

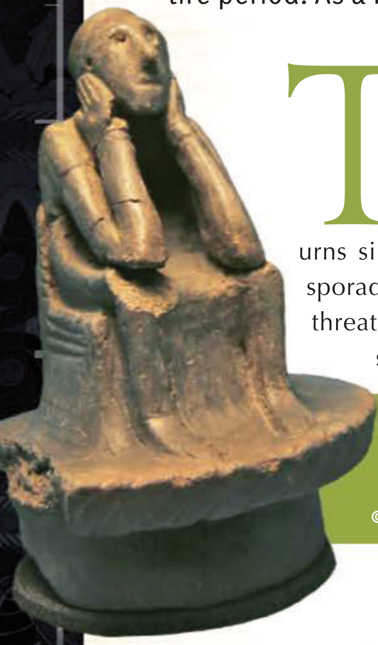
WHERE DID YOU GET THAT HAT?

By Murray Dahm

Found in 1979 in the largest Early Anglo-Saxon cemetery ever to be excavated, located at Spong Hill in Norfolk, UK, a unique pottery funerary urn lid is one of the few representations of a three-dimensional human figure from the entire period. As a find, it raises many interesting questions.

The Spong Hill cemetery, located near North Elmham, Norfolk, is one of the largest pagan cemeteries from early Anglo-Saxon Britain to be excavated. Ploughing had revealed fragments of cremation urns since the eighteenth century, with subsequent sporadic excavations revealing exciting finds, but threats from continued ploughing meant the entire site was excavated between 1972 and 1984. The Spong Hill Man was found in a rabbit burrow in 1979.

The cemetery, which was likely the main cemetery for the surrounding area, was used from ca. AD 400–420, just before the first Germanic 'invasion', to AD 600. It contains around 2500 hundred burials in total, including more than 2000 cremations. There are a small number of inhumation burials – late-Roman Christians' preferred burial practice – in the cemetery, which date to the mid-to-late 500s, alongside the cremations, suggesting that Christians and pagans lived (and died) side by side for some time. Peculiarly, the inhumations at Spong Hill also include grave goods, which were not common in Christian burials. The cremation burials at Spong Hill contained many such items – brooches, beads, and other jewellery, objects from spinning and weaving, toiletry items such as tweezers and combs, glass beakers and other vessels, and weapons – suggesting perhaps some crossover of cultural traditions.



The funerary urn lid dubbed the Spong Hill Man is dressed in Late Roman style with a *pileus pannonicus* on his head, and has hands raised (possibly in grief).
© Geni / Wikimedia Commons

Spong Hill mercenary?

The figure (now in the Norwich Castle Museum and Art Gallery) shows a seated male

© Michael Coppins / Wikimedia Commons

Early Anglo-Saxon belt set of bronze, gold, and garnet with animal-shaped buckle tongue, ca. AD 450-600.

© Vassil / Wikimedia Commons

figure with his hands raised to his face – perhaps in grief, since he is from the lid of a funerary urn containing the cremated remains of a deceased person? The figure may also have represented the deceased themselves or even a figure from mythology. The style of dress, however, especially the late-Roman pill box hat – the *pileus pannonicus* – suggests a contemporary figure rather than a mythological one. Not only that, depending on the date, the hat may suggest a military role. The 'Pannonian cap' began as a military hat before becoming more widely popular – we saw such a hat on the guard figure on the Maskell Passion Ivories, now in the British Museum, probably dating to AD 420–430 (see *AW* XVII.1). Although the Pannonian hat was fashionable and widespread until the sixth century, its presence on this figure from an Anglo-Saxon cemetery in Norfolk begs the question of why a foreign Germanic incomer would be wearing it. If this is a figure from the earliest period of post-Roman Anglo-Saxon occupation of East Anglia, it makes him all the more remarkable. Not only is the figure unique in Britain from the post-AD 500 period, he is also one of only two such figures found in Europe.

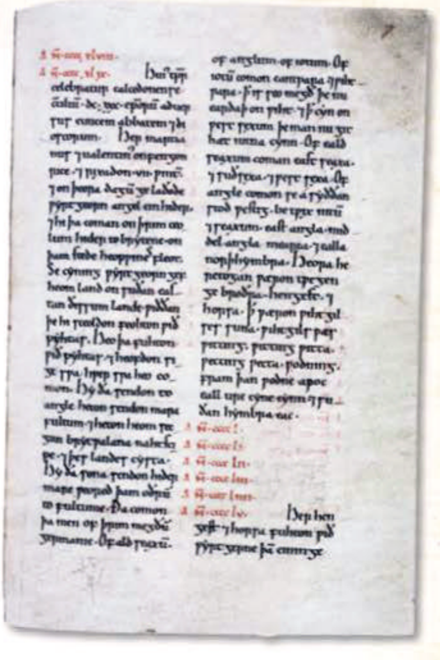
The Germanic *sax* or *seax* was typical of the Saxons in the Migration Period AD 500-700.

© Rijksmuseum van Oudheden, Leiden (NL)

The earliest invasions of a vulnerable Britain after she was abandoned by Rome are a complicated issue. According to the typical narrative, Rome withdrew troops from Britain in ca. AD 410 (see Zosimus, 6.10). Archaeology, however, suggests that a Roman presence continued well into the fifth century, and this is aided by other historical narratives which have Britons appealing for help from Rome until the mid-fifth century. The earliest 'Saxon' invasion of Britian (that of Hengest and Horsa, who were actually Jutish) is, likewise, usually dated to AD 449 – but this date also represents problems. The arrival of Hengest and Horsa may, in fact, have occurred twenty or more years earlier. What is more, rather than a foreign invasion, Hengest and Horsa may have been invited in as mercenaries to aid a Briton warlord to assist against Pict and Scot raids. In which case they were *foederati* or *laeti* troops who then turned on their Briton employers.

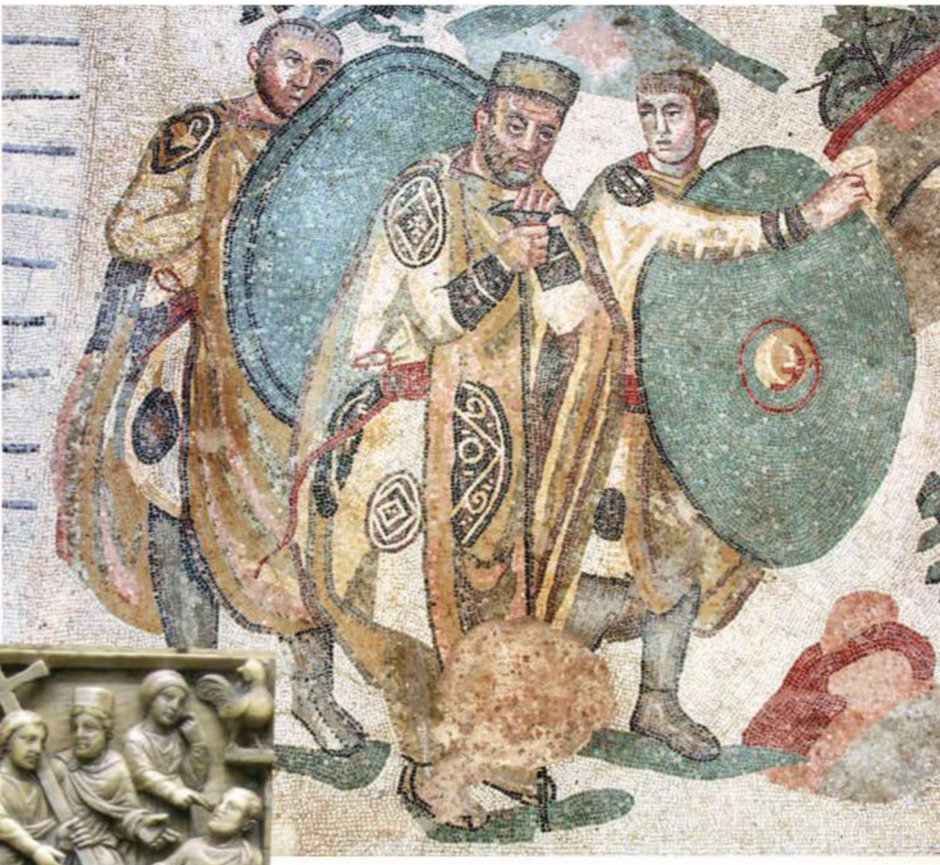
Roman commanders had employed such Germanic mercenaries for years, with many of the forts in Roman Britain being manned by foreign auxiliaries. For the petty warlords in post-Roman Britain, the employment of such mercenaries to fend off raids from the Picts, Scots, and other warlords may have seemed natural. These mercenaries then carved out kingdoms for themselves from among the local population who could do little to defend themselves. Such a scenario, that the Spong Hill Man may represent a mercenary, might support the idea that it is early, and it also suggests a firm reason why he is shown wearing a hat associated with Roman military dress, as he may have been a mercenary in Roman employ. *AW*

Murray Dahm is assistant editor of* Ancient Warfare *magazine.



Folio 007r from the *Peterborough Chronicle* (E) text of the Anglo-Saxon Chronicle regarding the arrival of Hengest and Horsa (AD 449-455).

© Bodleian Libraries, University of Oxford



Detail from the Big Game Hunt mosaic in the Villa Romana del Casale in Sicily, late third – early fourth century AD, where a senior figure wears a Pannonian Cap.

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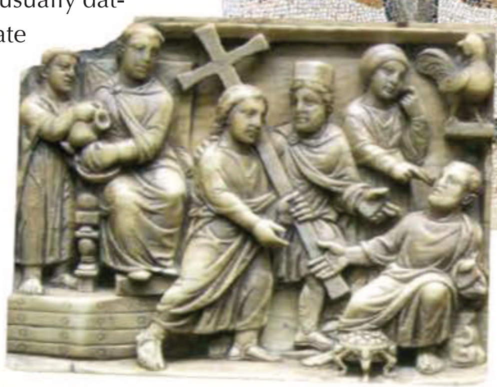
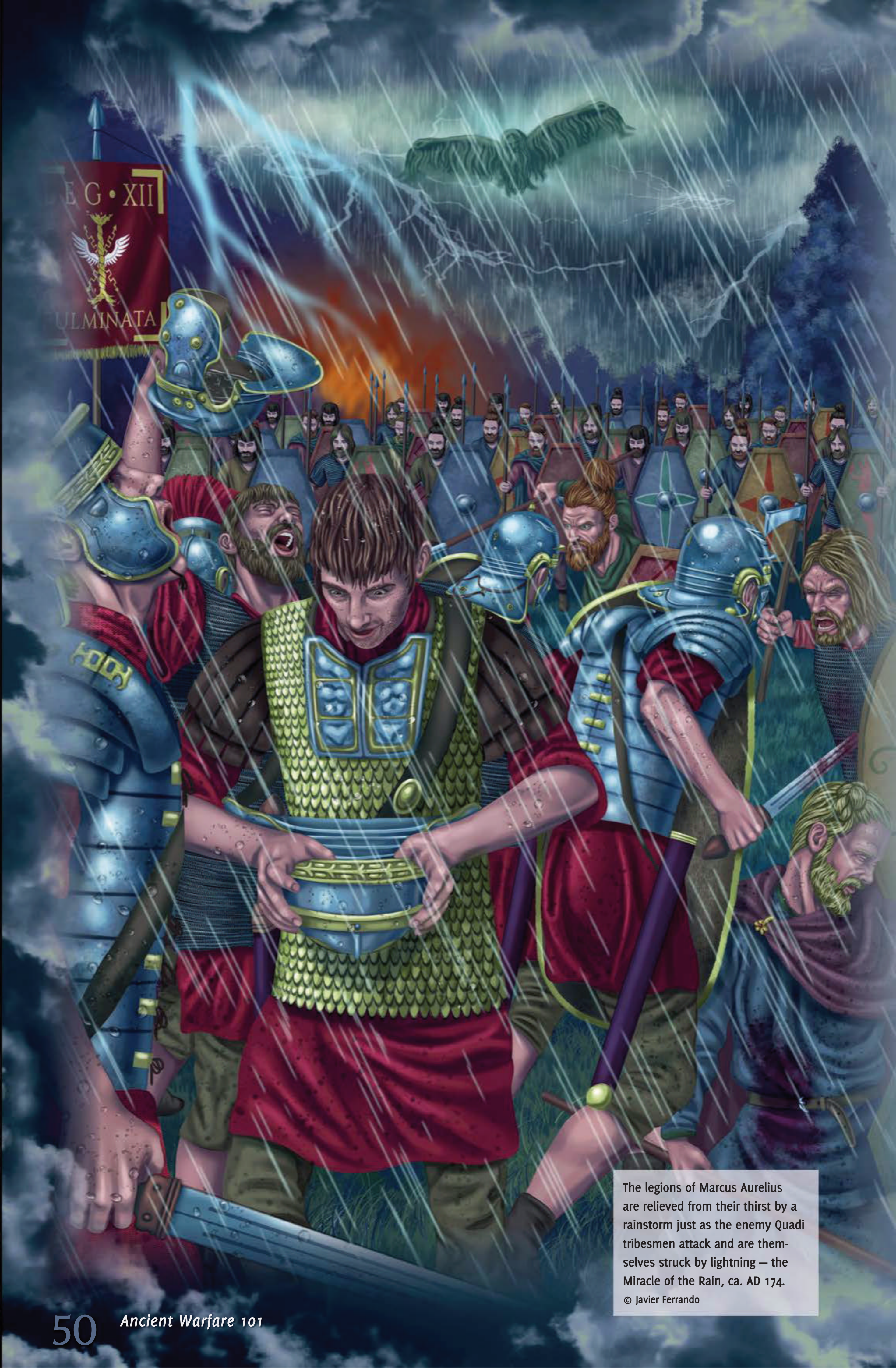


Panel from the Maskell Passion Ivories, with Pannonian hats still in evidence (AD 420-430).

© Sailko / Wikimedia Commons



The legions of Marcus Aurelius are relieved from their thirst by a rainstorm just as the enemy Quadi tribesmen attack and are themselves struck by lightning — the Miracle of the Rain, ca. AD 174.
© Javier Ferrando

THE WEATHER IN ANCIENT WARFARE

CLOUDS OF WAR

By Robert C. L. Holmes

It's easy to forget just how sudden, unexpected, and destructive the weather can be. In antiquity, with extremely limited options for predicting, tracking, or mitigating the effects of weather, it's influence on warfare was immense and sometimes lethal.

Our comfortable modern lives have largely rendered inclement weather little more than an inconvenience. The resources dedicated to predicting and tracking weather patterns around the world and mitigating their effects are enormous. These resources are readily available to the general public with little effort and limited cost. Satellites, weather balloons, radar, and a whole host of other instruments gather data on temperature, air pressure, wind speed, humidity, and more with relative ease and at comparatively low cost. All of this data is fed directly to meteorologists to interpret and pass on to the rest of us at regular intervals. These efforts have radically changed our relationship with the weather. Despite all of these resources, the weather still has the capacity to surprise us, and sometimes with deadly consequences. Thankfully, such surprises are not the norm, and unexpected changes to the weather are usually relegated to the level of minor annoyance. Yet we must remember that ancient peoples did not experience weather the same way we do. In the ancient world, the weather was far more unpredictable, far more terrifying, and far more dangerous than it is today. There were also far fewer options for dealing with weather than what is available to us now. This means that weather had a profound effect on all human activities in the ancient world, especially when it came to warfare.

Weather in the ancient world

The way in which people understood the weather played a prominent role in determining how it influenced warfare. Without question, most people would have connected the weather to the gods or other supernatural beings. The surviving evidence is packed with stories and depictions of these beings exercising control over the weather at their whim. In these sources, the various types of weather are understood as being either a blessing or a punishment from a deity or another type of supernatural being. It was one of the most important ways that such beings interacted with humanity. Thus, the weather was part of the transactional and reciprocal relationship between humanity and the supernatural. This understanding of the weather as being connected to the supernatural does not mean that during antiquity people were stupid or backwards. Without modern science, they simply had other ways of understanding the world in which they lived. For that matter, there is also evidence that strongly suggests that the weather was understood as a natural phenomenon. Aristotle's *Meteorology*, Epicurus' *The Letter to Pythocles*, and Pliny the Elder's *Natural History* provide plentiful evidence of this view. By no means are these views the equivalent of our modern scientific understanding of the weather, yet they still demonstrate that people were capable of making observations of the world around them and studying the data they collected. Humans have always been very good at pattern recognition, after all. So, there was certainly recognition that observable, predictable, natural phenomena were at play. Exactly how widespread this understanding of weather as a natural phenomenon was, is unclear, especially across time and culture.

The societies and civilizations of antiquity were far more agrarian or pastoral than those of our modern era. Cities existed, but most people did not live in them. These societies of antiquity were susceptible to, and reliant on, the weather. Sudden, unexpected shifts could be devastating. It could lead to the loss of a year's harvest, or it could wipe out an entire herd. When it came to the weather, too little could be just as bad as too much, depending on the time of year. It seems counterintuitive that people who produce food for themselves and others could face famine. However, during antiquity that was very much a reality for those living in agrarian and pastoral societies if the weather turned against them. Urban populations were also subject to the vagaries of the weather, since cities relied on larger hinterland areas for support. Keeping urban populations fed was one of the greatest challenges for ancient governments. Food storage was possible, but only to a limited extent. If the weather was not conducive to maintaining crops and herds, famine was likely. This meant that regardless of whether you lived as a pastoralist on the steppe, a farmer in the hinterland, or in a dense urban centre, during antiquity you were still subject to the vagaries of the weather.

The options that were available for people faced with the challenges presented by the weather were quite limited. They could seek shelter, attempt to mitigate it, or simply leave. Seeking shelter was the simplest and most common method of handling the weather. All that involved was placing some sort of barrier between yourself and the weather, then waiting for the weather to shift. However, there was always the risk that the weather might be too extreme, and the shelter might not be adequate. With time and warning you could potentially work to mitigate the worst effects. This usually involved infrastructure projects, like dams and levees to control flooding, or canals and aqueducts to transport water during droughts. Yet even these could be overwhelmed by the sheer power of nature. They also required constant upkeep and maintenance which could prove expensive. If advance warning was possible or if the weather proved too extreme, people simply moved out of its path. Prolonged drought or flooding might render an area uninhabitable, in which case people could just leave for more hospitable regions. Land and property were abandoned with no guarantee that a more hospitable area would be found. Such migrations could also lead to conflict with other groups looking to protect their own lands and resources.

Weather and war

Perhaps the greatest influence of weather on conflict was determining when fighting could take place. Since society was agrarian or pastoral, the seasonal weather patterns were tied to warfare. These periods were often tied to planting, harvests, or moving animals to different pastures. Premodern agriculture was labour-intensive and required just about everyone to pitch in so that animals could be moved, fields could be planted, and crops could be harvested. Among the Romans, for example, the month of Martius marked both the resumption of agricultural activities and the start of the campaign season. It was, initially, the first month of the year, beginning at the end of winter, and was named after Mars, the god of war. Outside of these periods, the weather was usually viewed as not being conducive to warfare. Warfare also required lots of labour which would not be available at these times, as the fields and herds needed tending. There might also be fewer resources available to feed men and animals, and the movement of armies might be hindered by snowed-in passes, swollen rivers, or flooded roads. However, different cultures viewed the suitability of these seasons for campaigning differently, so there could be exceptions. During the winter of 326–325 BC, Alexander the Great was able to catch the Mallians off guard by campaigning during the rainy monsoon season, a period during which the Mallians traditionally abstained from war, defeating them in a piecemeal fashion before they could gather or coordinate their armies. However, the campaign was won at a cost and clearly placed a burden on his men and animals. The army was exhausted, and Alexander was nearly killed while trying to spur his men on.

Many strategies and stratagems made use of the weather; some were planned in advance, while others were more opportunistic. To the extent that it was possible, strategies could be developed that drew on knowledge of local weather patterns. It is also worth noting that because it was difficult to accurately predict the weather, it is possible that strategies and stratagems that relied on the weather may have been literary devices rather than faithful recountings of actual events. In the sources, recounting these strategies, even when dubious, served to highlight the cleverness of one's own side and the cunning of the enemy. In 209 BC, Scipio faced the determined defenders of the city of Carthago Nova. According to Livy, Scipio captured the city by timing his attack to coincide with the north wind which blew in the afternoon. This caused the water in the lagoon surrounding the city to pile up, allowing the Roman troops to safely approach. Both Livy and Polybius suggest Scipio had gathered intelligence about the weather patterns prior to the siege.

Far more often, strategies and stratagems that made use of the weather were opportunistic. In the sources, these events, even when of a dubious nature, served to demonstrate the favor or disfavor of the gods. According to the Book of Joshua (10:11), the Israelites triumphed in a battle with the Amorites in part because Yahweh sent a great hailstorm. More Amorites were killed by the hailstones than the swords of the Israelites, which was interpreted as a clear sign of Yahweh's power and support. Centuries later, in AD 394, the armies of Theodosius I and Eugenius faced each other at the Battle of the Frigidus. Theodosius' troops were losing, until the *bora*, a north to north-easterly wind, began to blow. The high winds buffeted Eugenius' men and blew dust in their faces causing them to break under the strain of Theodosius' attack. While these winds are a regular occurrence in the region, the ecclesiastical histories portrayed the battle as a divinely assisted victory of Theodosius' Christian army over the pagan Eugenius.

The weather also had a major influence on the logistical capabilities of armies. It was the one thing that they would still struggle with regardless of how well-organized the logistical system was. Even in our period of abundance, we have seen how the weather in places like Ukraine has affected the availability of men, animals, and supplies. During antiquity, the weather could both limit production and acquisition, as well as destroy material that had already been gathered. Both famine and spoilage were directly linked to the weather. Yet it should be noted that the weather could also lead to bounties which greatly aided with logistics. In the winter of 400/399 BC, Xenophon and the 10,000 found themselves marching through the mountains of Armenia. The onset of winter and its snowstorms left them desperate for food, warmth, shelter, and clothing. They were no longer able to live off the land in order to fulfill their needs. Had they not encountered a well-provisioned fortress that they successfully assaulted, the army would have collapsed.

The weather also had a profound effect on transport. It matters very little how good your logistical system is at gathering things if it never gets delivered to the army. The quality of the ancient world's infrastructure varied greatly over time and place. Regardless of how good or bad it was, the weather always had the potential to make things worse. In some instances, severe weather completely wiped-out important pieces of infrastructure. Perhaps the most famous instance of the weather causing logistical problems occurred in 480 BC when the Achaemenid king Xerxes (ca. 518–465 BC) invaded Greece. Storms first destroyed the Achaemenid bridge across the Hellespont and then battered the supporting Achaemenid fleet off Magnesia. As a result, their logistical situation remained tenuous, and they lost much of their operational mobility which helped the Greeks weather the Persian storm.

Disaster and salvation

It is always worth remembering that wars are fought by people – something that is too often forgotten. The soldiers and warriors of antiquity experienced the effects of the weather every time they took up arms. How and what they suffered when exposed to both warfare and weather offers both insight into the conflicts of the ancient world and the recognition that these were the experiences of actual people. In some cases, the weather brought with it pain and suffering. Many of the options for mitigating the effects of the weather were not available to the soldiers, sailors, and warriors. In the autumn of 325 BC, for example, Alexander the Great led his army across the Gedrosian Desert. The results, as described by Arrian (*Anabasis* 6.24.4–25.1), were disastrous. For the army, the blazing heat and lack of water was worse than anything that they had experienced in any of their previous campaigns. Attempts were made to mitigate the effects of the arid weather, but to little avail. They marched at night to shelter from the heat, sought to camp near water sources, and abandoned almost all their baggage to get through the desert and leave the area as quickly as possible, but even these efforts proved ineffective. The casualties among the men and animals were appalling. Even in our modern era, heat remains the greatest weather-related killer.

However, there were also times when the weather brought relief, if not salvation. In times of such extremity, the weather must have felt like divine intervention to the suffering troops. Sometime in AD 172 or 174, during the Marcomannic Wars, the army of Marcus Aurelius found itself surrounded by the Quadi. Adding to their suffering was the great heat and lack of water. With the Romans visibly weakened, the Quadi attacked. It was at this moment that a downpour broke over the Roman position. The thirsty soldiers gulped down enough water for themselves and their horses. According to Cassius Dio, they drank and fought the Quadi at the same time. This incident became known as the 'Miracle of the Rain'. It was colorfully depicted on Marcus Aurelius' column and is one of its most memorable scenes. Other sources add hail and lightning striking down the Quadi while sparing the Romans. Christian writers argued that it was the result of their prayers, while others attributed it to magicians accompanying the army. Some even erroneously claimed that *legio XII Fulminata* ('Thunderer') got its name from the battle (its title actually dates to the first century BC). Yet for all of this we should not lose sight of the soldiers whose suffering was alleviated by the rain and who, reinvigorated, won the battle.

Conclusion

Weather had a profound effect on all human activities, including conflict and warfare. Options for predicting, tracking, and mitigating the weather were limited, as were the options for mitigating its effects. Regardless of whether it was understood as a natural phenomenon or divine intervention, the weather shaped every conflict and campaign across the ancient world. The comforts and security of our modern world often shield us from the weather, rendering it little more than an inconvenience. As such, it can be difficult to comprehend how different our experience of the weather is from those who lived during antiquity. Yet the weather still has the power to shape warfare and conflict in profound ways. As such, it is one of the few aspects of war that would be familiar to soldiers of both the ancient world and the modern world, and there is no indication that this relationship between weather and war will change in the future.

***Robert C.L. Holmes is a regular contributor to* Ancient Warfare.**

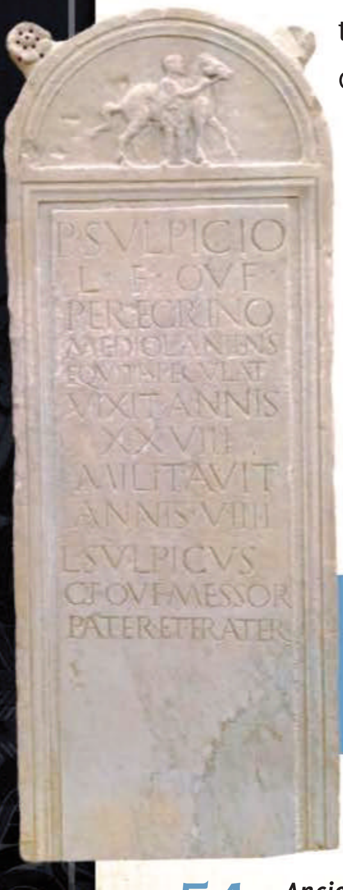
The Villa of Nero in Antium (located near modern Anzio, Italy). One inevitably has to wonder if Peregrinus was on a special Imperial mission.

THE TOMBSTONE OF P. SULPICIUS PEREGRINUS

SCOUT'S HONOUR

By Jo Ball

Sensible precautions meant that relatively few Roman soldiers were ever stationed in Italy during the Imperial period, making military tombstones from this region of the empire fairly rare. Those which are found often commemorate soldiers with a fairly prestigious role. This tombstone is dedicated to one such individual, an *eques speculator* named Publius Sulpicius Peregrinus.



Tombstone of the *eques speculator* Publius Sulpicius Peregrinus, found in Anzio, near Rome. The exact role(s) of the *speculatores* are still not fully understood. At the top, Peregrinus is depicted walking alongside his horse.
© Joanne Ball

Found in Anzio, ancient Antium, a coastal settlement just over 50 km south of Rome, the tombstone provides a touching memorial to Publius Sulpicius Peregrinus, a cavalryman in the Imperial army who served in the field of scouting and military intelligence for nine years, before dying aged 28. While not an overelaborate stone, it is still a physically substantial memorial, featuring a relatively long inscription, and a relief image of the deceased cavalryman and his horse. Based on the style and language of the stone, it has been dated to the late first or early second century AD.

The life of Peregrinus

The inscription on Peregrinus' tombstone reveals that he was from Mediolanum (Milan), and that he was a Roman citizen, despite his cognomen literally meaning 'stranger' or 'foreigner'. He did not share this cognomen with his father, Lucius Sulpicius Messor, and why Peregrinus was named thus is unclear. The tombstone was dedicated by Peregrinus' father and his unnamed brother. No other family members or comrades are mentioned on the tombstone.

The relief shows Peregrinus walking alongside his horse, with a hand raised to hold the bridle, wearing a tunic rather than armour or military kit. Unlike other tombstones of cavalrymen, which tend to show the deceased killing a barbarian, this image lacks any active or open violence, a spear and shield in the background of the main scene the only reference to Peregrinus' military identity. However, it is clear from both the image and the text that Per-

© Luciano Tronati / Wikimedia Commons

DID YOU KNOW?

The historian Ammianus Marcellinus seems to operate as a *speculator* before the siege of Amida in 359 AD – spying out Sasanian Persian movements with only a single companion (see Ammianus, *Roman History* 18.6.21-22).

egrinus was to be remembered as a soldier – not necessarily as a hero on the battlefield, but as someone who fulfilled a different, but important, military role.

A Praetorian *eques speculator*?

The inscription on Peregrinus' tombstone does not specifically identify him as a member of the Praetorian Guard, or of any specific legion. Instead, he is described simply as an *eques speculator*, a rank often translated as 'mounted scout or spy'. The *speculatores* originally served as messengers, scouts, and spies for the legions, then becoming bodyguards for legionary commanders, before evolving into a more specialized intelligence role.

Aureus of Claudius, AD 46, on the reverse is the reception of the emperor in the Praetorian camp.
© cngcoins.com

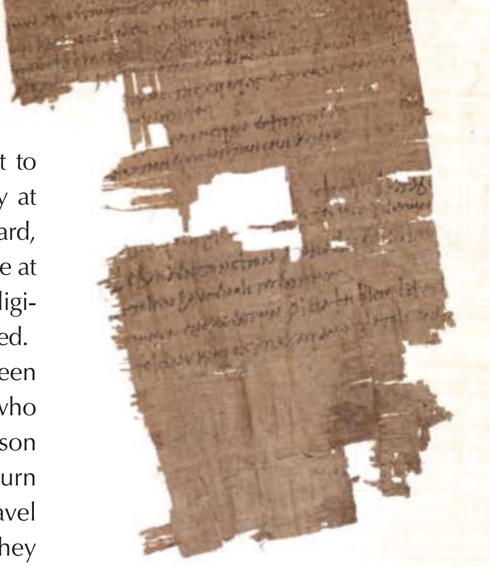
The *speculatores* seem to have worked in smaller numbers – as pairs or even individuals – to gather secret and sensitive information through covert missions. Additionally, the *speculatores* were also responsible for a range of other duties, from acting as couriers for official documentation to assisting with policing and tax collection. There was no single unit of *speculatores*, with the men instead assigned in small numbers to individual legions and units – including, in Italy, the Praetorian Guard. Many of these roles would be passed on to the mysterious *frumentarii*, who became the primary agents for internal security in the Roman world – a process which likely began in the late first century AD, broadly the same period as Peregrinus' life and death.

Peregrinus' tombstone does not provide any indication of his unit. He may have served with the Praetorian Guard in Rome. In the very early Imperial period, the *speculatores* of the Praetorians were given the specific rank of *speculatores Augusti*, making them easier to identify in inscriptions. However, this distinction disappeared after AD 23, when the different divisions of the Praetorians were brought together by Sejanus in an attempt to consolidate the force. There were probably at least 300 *speculatores* in the Praetorian Guard, and it is likely that an individual had to serve at least six or seven years before becoming eligible for the role; a criterion Peregrinus satisfied.

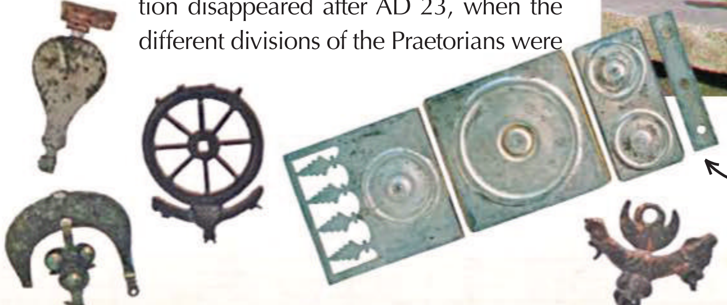
Alternatively, Peregrinus may have been a *speculator* for an unnamed legion, who was sent to Rome for an unknown reason and ended up dying before he could return to his unit. Legionary *speculatores* did travel to Rome on official business, and when they did, they were quartered in the *castra peregrina* on the Caelian Hill; their presence in Rome was, therefore, common enough that regular provision was made for them.

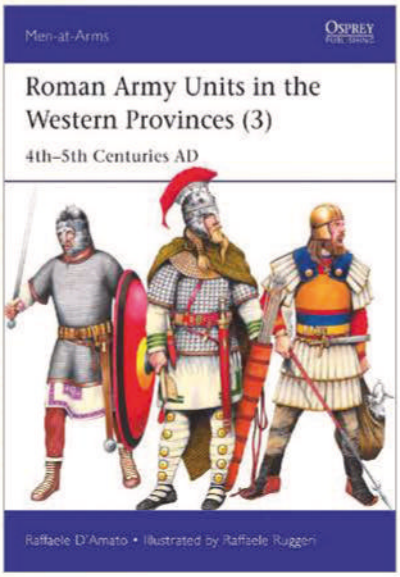
Perhaps there is a specific meaning in the absence of Peregrinus' unit from his tombstone; perhaps it was left off by chance. Either way, the tombstone commemorates the existence of a young man who served the Roman army in the capacity of an intelligence officer, and died while doing so before his 30th birthday. He left behind a father and a brother, and no doubt some bereaved comrades – whether in Rome or the provinces. AW

***Dr. Jo Ball is a regular contributor to* An*cient Warfare* magazine.**


Report of a court case from the fourth century AD. Among the many parties involved is a *speculator*. By this time, *speculatores* may have filled a purely administrative role.
© University of Michigan Library

The Fontana della Navicella (Fountain of the Small Ship), built around a sculpture of a decorated Roman galley that was erected in front of the church of Santa Maria in Domnica, Rome. Its origins are not entirely clear, but it is claimed it was found at the nearby *Castra Peregrina*, where it may have been an *ex voto* setup by soldiers who had travelled long distances.
© MM / Wikimedia Commons


Roman military horse tack was often extravagantly detailed and enhanced with brass and silver.
© Karwansaray Publishers


Men-at-Arms
OSPREY PUBLISHING
Roman Army Units in the Western Provinces (3)
4th–5th Centuries AD
Raffaele D'Amato • Illustrated by Raffaele Ruggeri

Roman Army Units in the Western Provinces (3)

By Raffaele D'Amato

ISBN: 978-1472862686
Osprey (2024) - £12.99

www.ospreypublishing.com

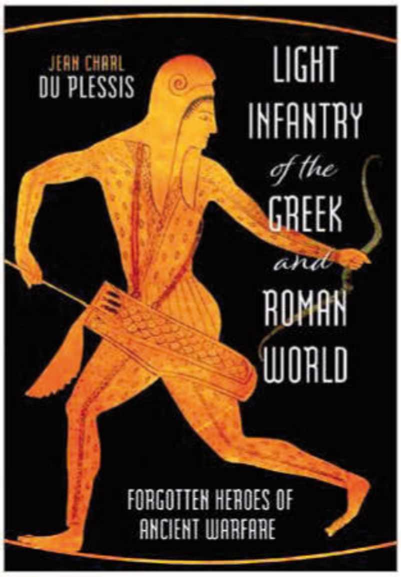
This is the third volume in D'Amato's *Men-at-Arms* 'series' looking at the Roman Army units in the western provinces (following on from *MAA* 506 and 527) and in conjunction with the paired volumes of units in the eastern provinces of which only two volumes have appeared (*MAA* 511 and 547). This volume explores the fourth and fifth centuries. With typically fine illustrations by Raffaele Ruggeri, this is the volume where the evidence of the *Notitia Dignitatum* can come into its own. Often, however, the *Notitia* is used to suggest how earlier deployments of troops may have looked too – as D'Amato does here, to deduct units' placements from the Diocletianic tetrarchy (293-305) onwards.

This is a complex period of Roman history with rapid changes of ruler and shifts of power. D'Amato does well to summarise it although his select chronology (p. 4) must necessarily omit a great deal. He admits that the developments and changes in military organisation are hard to follow. Thus, we have the *comitatenses* (field), *palatini* (palace), and *limitanei* (frontier) armies under Constantine which consisted of various types of units and vexillations, as well as *foederati* or *laeti* foreign mercenary troops. We still find units called *legiones* and other terms we are familiar with from earlier Roman history such as *auxilia*, *milites*, *numeri*, *equites*, *alae*, *cunei*. Their meanings, however, have often changed. The strength of such units may have been radically reduced from earlier periods although you will still find works using earlier strengths – not helped by Vegetius (writing ca. 383) recommending an old legion's strength and Ammianus (writing ca. 390) using old terms without clarifying what strengths they had in the period he describes, 350-378. Naming conventions of units are also confusing – we often have them (such as in the *Notitia*) but we are not sure if they still revealed a place of origin for troops in a particular unit or were traditional, or if they marked a place of service, a particular campaign or some other distinguishing feature. Thus, there are units named by Ammianus (cornuti, mattiarii, lancearii - 31.8.9, 31.13.8) which we are not sure if they were named after a weapon, a fighting style, an origin or something else. For other units these conventions are clearer but when Ammianus names the Batavii for instance (31.13.9), were they the Batavians of old, recruited in the same areas as the auxiliary forces of the first century AD or was it just a name they had kept? We don't know. Nor is this helped when we find multiple units with shared names across multiple locations in the *Notitia*. Similarly, the commands of units now fell to *magistri (*sing. *magister*, master or commander) although there are a whole raft of variations - *magister peditum praesentalis* (master of infantry), *magister equitum* (master of cavalry), *magister utriusque militiae* (master of soldiers) – sometimes abbreviated to *magister militiae*, and all of these often simply referred to as *magister* so we don't specifically know which command was held. Below these (and in provincial commands) we also have *comes* and *dux*. Sometimes we are given specifics, such as in the *Notitia*, but in historical accounts we are not, and often cross referencing a name with a known command is not possible. What is more, with many changes occurring over the two centuries explored, it is difficult to pin down a particular look for a wide period of time.

Perhaps most useful is D'Amato's table listing known deployments of units with dates (pp.10-12) even though he apologises for needing to omit some information due to space (a fuller version of the table is available on the Osprey website). D'Amato splits discussions of arms, clothing and equipment into areas (Barbaricum), and diocese (such as Hispania, Britannia, Gallia, etc) discussing iconography and archaeology in each. Whilst this helps avoid the idea of a uniform appearance of soldiers across the entire empire, it may go too far – the appearance of a soldier from a particular of diocese or province may be based on a singular find.

The core of any *Men-at-Arms* are the art plates although the (mainly) colour photos add to this too – there are perhaps too many buckles and belt plates for my liking, but such things are useful and inform the art plates. It is good to see some unusual mosaics and reliefs. Like the descriptions, the plates are split into diocese (so Hispania, Britannia, Gallia etc) and each is based on a particular find (and using others (usually from the same geographical area) to fill out the detail when necessary). This is a perfectly acceptable procedure although it may create a false sense of regional diversity. All in all, and especially taken with the previous volumes, this title gives a good introduction to where particular units were and how the appeared in the time period.

– Murray Dahm



Light Infantry of the Greek and Roman World

By Jean Charl Du Plessis
ISBN: 978-1399081481
Pen & Sword (2024) - £25.00

www.pen-and-sword.co.uk

Based on his PhD thesis from the University of KwaZulu-Natal, this book explores the (oft-neglected) role of light-armed infantry. In many battle accounts we are not even told they were present although sometimes that detail is mentioned incidentally or they appear in an account having been ignored in the description of deployments – or indeed, they are mentioned in the deployment description and then never make an appearance in the narrative of the battle proper. As several of the articles in this issue make clear, however, light-armed infantry were important in nearly all armies and they would have been present on the battlefield even if our sources neglect to mention them or tell us of their vital role.

In addition to traditional scholarship, a wide array of sources which he usefully quotes, du Plessis also values experimental archaeology – he himself is a practitioner of slinging and archery and a South African champion in both sword-and-shield and longsword at HEMA (Historical European Martial Artist) competitions. These skills and experiences certainly add validity to some of the author's arguments and observations – but not necessarily to all of them (experimental archaeology gets its own chapter in chapter 8 (164-185) including valuable contributions such as ranges of slingshot and arrow.

The work opens recognising that Greco-Roman warfare 'always' distinguished between light and heavy infantry (1). This might not sound controversial but has become so, especially as the idea of a more open fighting style of 'heavy' infantry has become popular. Controversial, too, is du Plessis' idea that light infantry fought as individuals (1) and not in any sense of well-formed rank formation. Such a view may have come about from a modern reenactor as an individual archer/slinger rather than within a unit or anything resembling the units of such troops which the sources describe – we rarely find an individual light-infantryman 'in action'. This also contradicts the idea that light-infantry fought in combination with one another and, indeed, with other units and troop types – despite such descriptions being in the very sources du Plessis uses to inform his views. Such a view is also somewhat contradicted by du Plessis' own chapter five looking at the hybrid troop-types of the Hellenistic era when units of such troops could be both heavy and light at the same time. They also clearly fought in set formations although du Plessis might argue that they did not. Yes, light-infantry were swift, nimble and possessed multiple battlefield advantages but those were usually only advantages in combination with other factors. Light troops may also have achieved battlefield aims by such things as concentrated fire and, as a group, exploiting an advantage – things not achievable by a group acting as individuals.

The author accepts that light-infantry may well have had a subordinate role in pitched battles where heavy infantry and cavalry dominated but points out that such pitched-battle-warfare was, in fact, quite rare (ix, 186)). Foraging, raiding and pillaging would have been far more common, and it would have been in these roles that light-infantry excelled. They were, no doubt, indispensable on the march. They would also have come into their own in terrain to which heavy infantry were unsuited.

Du Plessis explores the various terms for types of light infantry. Each is explored in terms of the sources which mention them, their weapons and their combat role. Such an analysis all in one place with relevant sources and references is welcome indeed.

I am not sure of du Plessis' thought that light infantry were disregarded in the sources because they lacked the reputation of heavy infantry or cavalry; when necessary we find our sources praising them for their deeds. It is just that, in the warfare our sources like to concentrate on, heavy infantry and cavalry played a more dominant and decisive role. Du Plessis is somewhat out of date in this view. Nonetheless, it is useful to think about the ubiquity of light-armed troops – they would have been present and useful even when our sources do not mention them. The author somewhat undermines this premise when he quotes Iphicrates (Plutarch *Pelopidas* 2.1.1) who recognised the value of light armed troops as did many other commanders throughout antiquity.

A work exploring the much-neglected battle-field role of light troops is welcome and aids our thinking around how ancient warfare worked. Despite some missteps, du Plessis is a good place to start although perhaps an integrated, combined-arms, approach is needed. I think du Plessis overstates his case, but he may have considered such a position necessary for his arguments to be heard that light infantry were the "forgotten and unsung heroes of ancient warfare".

– Murray Dahm

ANCIENT WARFARE *readings*

SINGLE COMBAT IN ANTIQUITY

There are many examples of ancient warriors fighting epic duels to the death. Here are some more books and articles on that topic to check out.

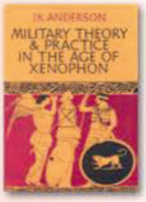
THE CORINTHIAN WAR, 395-387 BC:
THE TWILIGHT OF SPARTA'S EMPIRE

JEFFREY A. SMITH
THE CORINTHIAN WAR 395-387 BC

By Jeffrey Smith
Pen & Sword, 2024
ISBN: 978-1399072199

Under Agesilaus II, it looked as if Sparta would embark on a wider empire, her limitations were soon exposed. An unlikely alliance united against Sparta in a war that, despite a Spartan victory, had devastating ramifications. The Corinthian War was a fascinating entanglement of clashing empires, complex diplomatic alliances and betrayals, and political fissures.

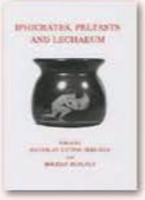
MILITARY THEORY AND PRACTICE IN THE AGE OF XENOPHON



By John Kinloch Anderson
University of California Press, 1970
ISBN: 978-0520015647

Despite being more than fifty years old, this is probably still the go-to volume for a military history of the period. Anderson explores the works of Xenophon whose writings are essential for understanding the period 411-355 BC. Anderson also examines the equipment, training, drill, and tactical handling of Greek heavy infantry in the Classical period of Greece.

IPHICRATES, PELTASTS AND LECHAEUM



Edited by Nick Sekunda and Bogdan Burliga
Akanthina, 2014
ISBN: 978-8375311679

In a series of articles by various contributors, this work explores many of the topics covered in this issue. These include articles on the battle of Lechaeum, on the Spartan *mora*, on Iphicrates, and three articles on peltasts and their equipment. In these articles and the associated notes and further reading there is much to engage and ignite the reader to look further, deeper into all the associated topics.

THRACIAN PELTASTS AND THEIR INFLUENCE ON GREEK WARFARE

Thracian Peltasts

By Jan G. P. Best
Brill, 1969
ISBN: 978-9004672369

Best remains an excellent starting point for any discussion of peltasts – their origins, development and influence. After an introduction and discussion of the peltast, the main thrust of the remaining text deals with the battle of Cunaxa and its aftermath and then the fourth century. He also explores those literary sources which are relevant to the study of peltasts.

Other articles and publications

- Cartledge, Paul. *Thebes: The Forgotten City of Ancient Greece*. New York: Abrams Press, 2020
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- Rusch, S.M. *Sparta at War: Strategy, Tactics, and Campaigns, 550–362 BC*. London: Frontline Books, 2011
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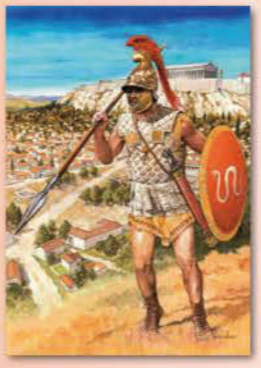
ON THE COVER: Age of Innovation



In the aftermath of the Peloponnesian War (431-404 BC), it seems that the conduct of, and thinking about, Greek warfare underwent a seismic shift in the first decades of the fourth century BC: 400-350. Not only were there experiments with line depth and the lengthening of the spear (and other, similar experiments) but we also find innovations such as in drawing up the battle line in echelon (such as at the battles of Leuctra in 371 and Second Mantinea in 362) and in the maximising of light troops (such as at the battle of Lechaeum in 390). Other innovations such as the introduction of the cardaces in the east (Persian troops armed like hoplites) occurred along with other innovations explored in this issue. It is also in this period that the first works were written as didactic handbooks on how to command troops (by Xenophon and Aeneas Tacticus especially). It truly was an age of innovation.

Here we see an Athenian hoplite of the period of Iphicrates' reforms. He wears a lighter linen cuirass – and carries a longer spear than the fifth century *dory*, a smaller shield, and he wears the boot which became known as the Iphicratid – all things Cornelius Nepos (and others) credit Iphicrates with.

BOOKS AND MAGAZINES FROM KARWANSARAY PUBLISHERS

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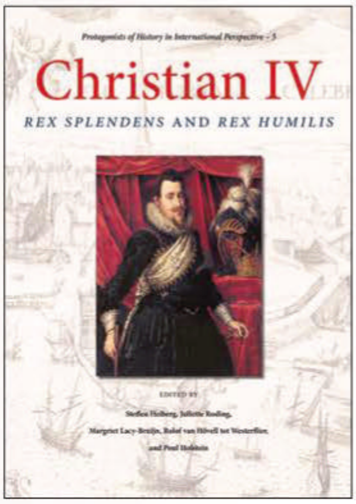
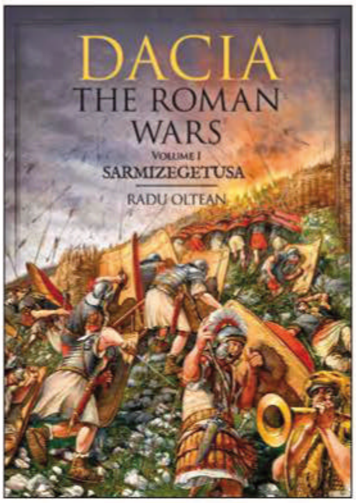

Protagonists of History in International Perspective – 5
Christian IV
REX SPLENDENS AND REX HUMILIS


DACIA
THE ROMAN WARS
VOLUME I
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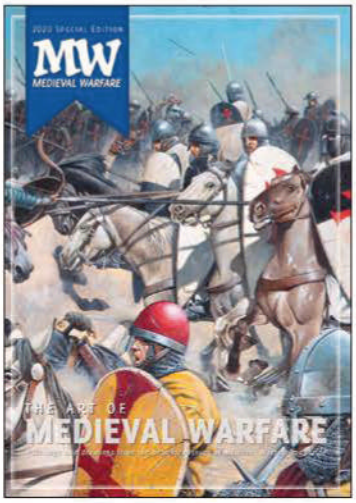
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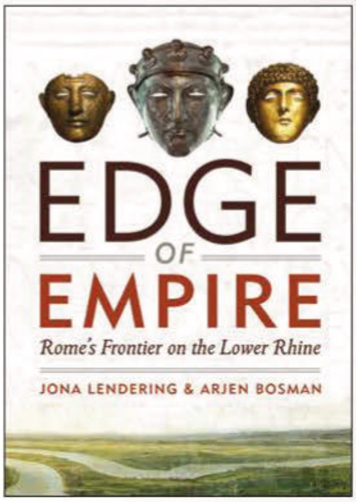
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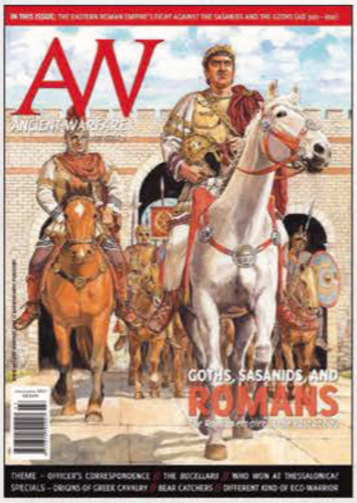
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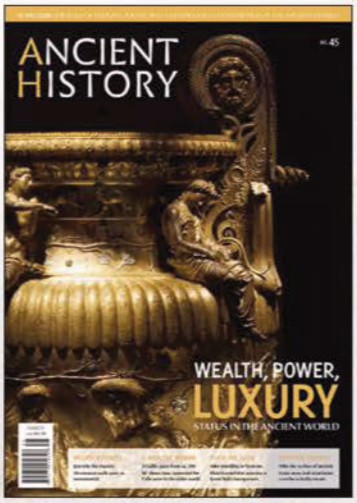
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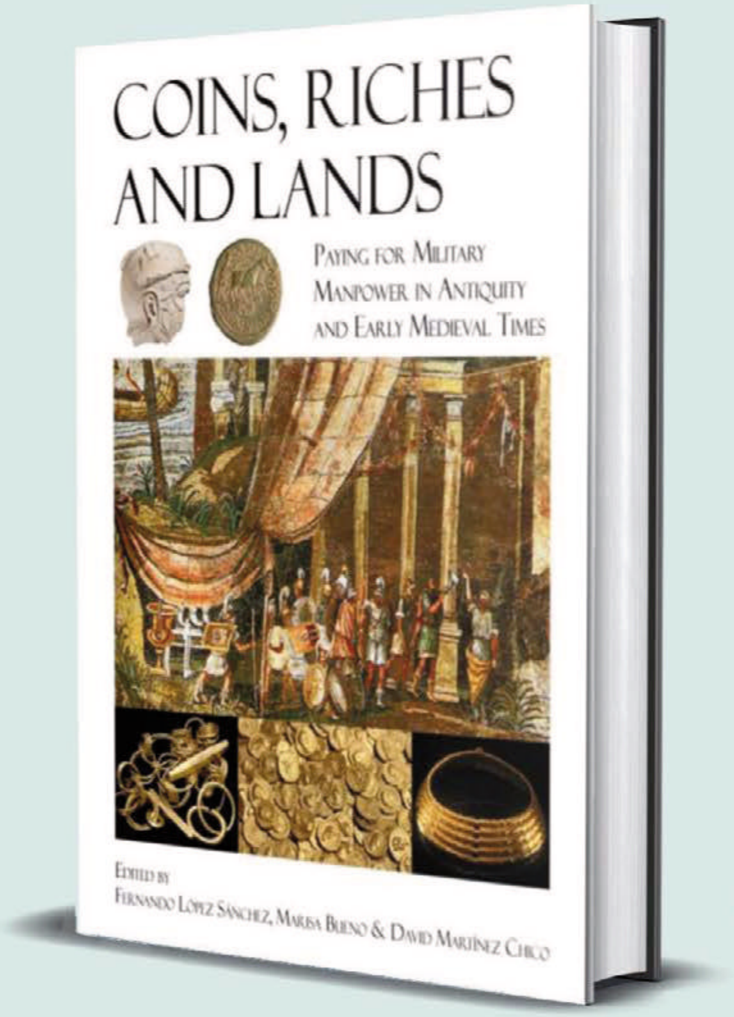
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